

**LEGEND**

- Site Boundary
- Reporting Points
- Existing Current Fill Boundary

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08d\_Bris.dwg  
XREF's: xref-Results; xref-lpswich\_DC08\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

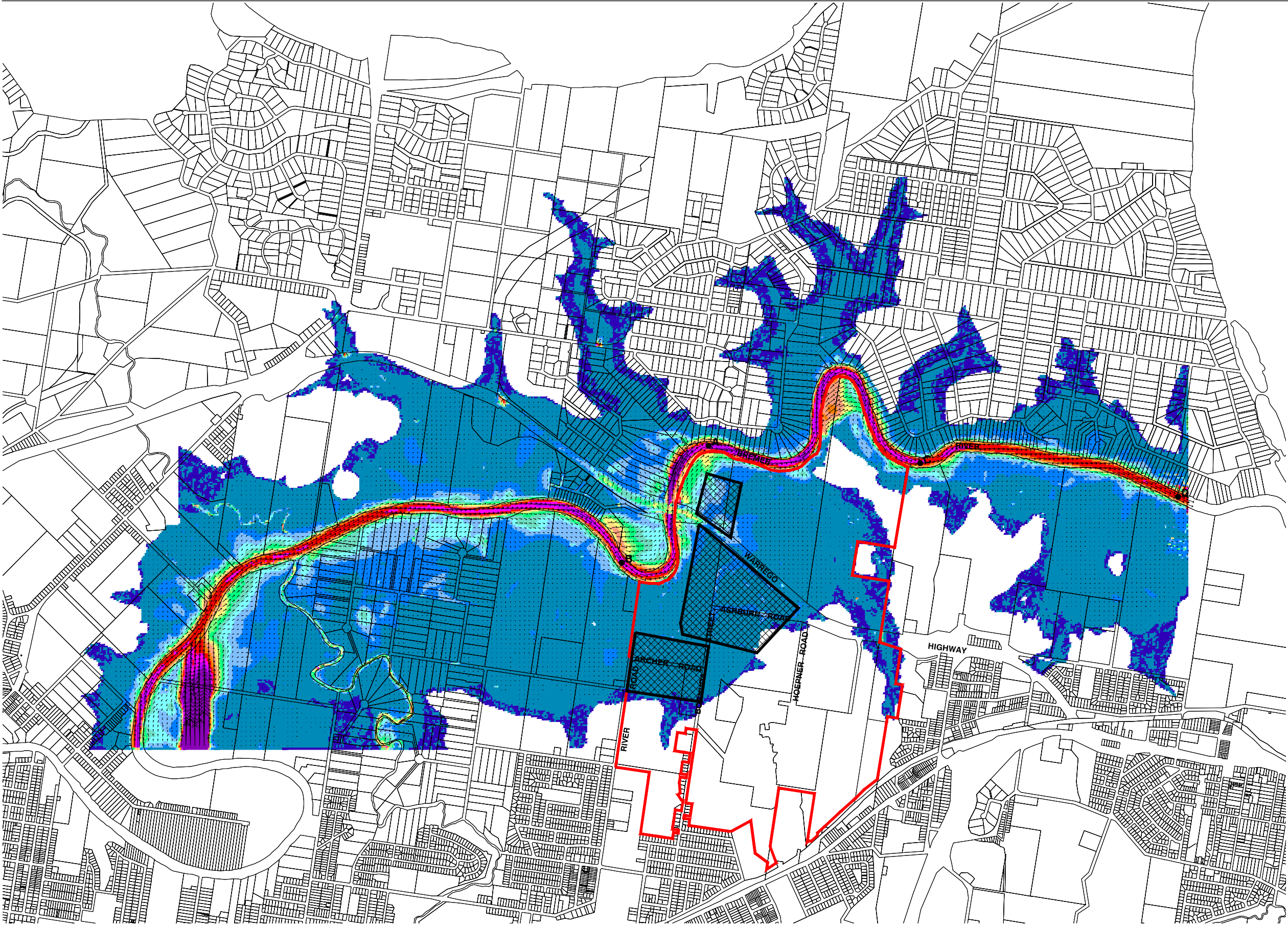
Scale 1:25000 (A3)

**FIGURE B.3.6**  
**EXISTING CURRENT - SPEED - SKM ULTIMATE 200 YEAR EVENT (Bris\_E08d)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 2:53pm





**LEGEND**

- Site Boundary
- Reporting Points
- Existing Current Fill Boundary

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08d\_Bris.dwg  
XREF's: xref-Results; xref-lpswich\_DC08\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)  
**FIGURE B.3.7**  
**EXISTING CURRENT - SPEED - SKM ULTIMATE 500 YEAR EVENT (Bris\_E08d)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 2:54pm

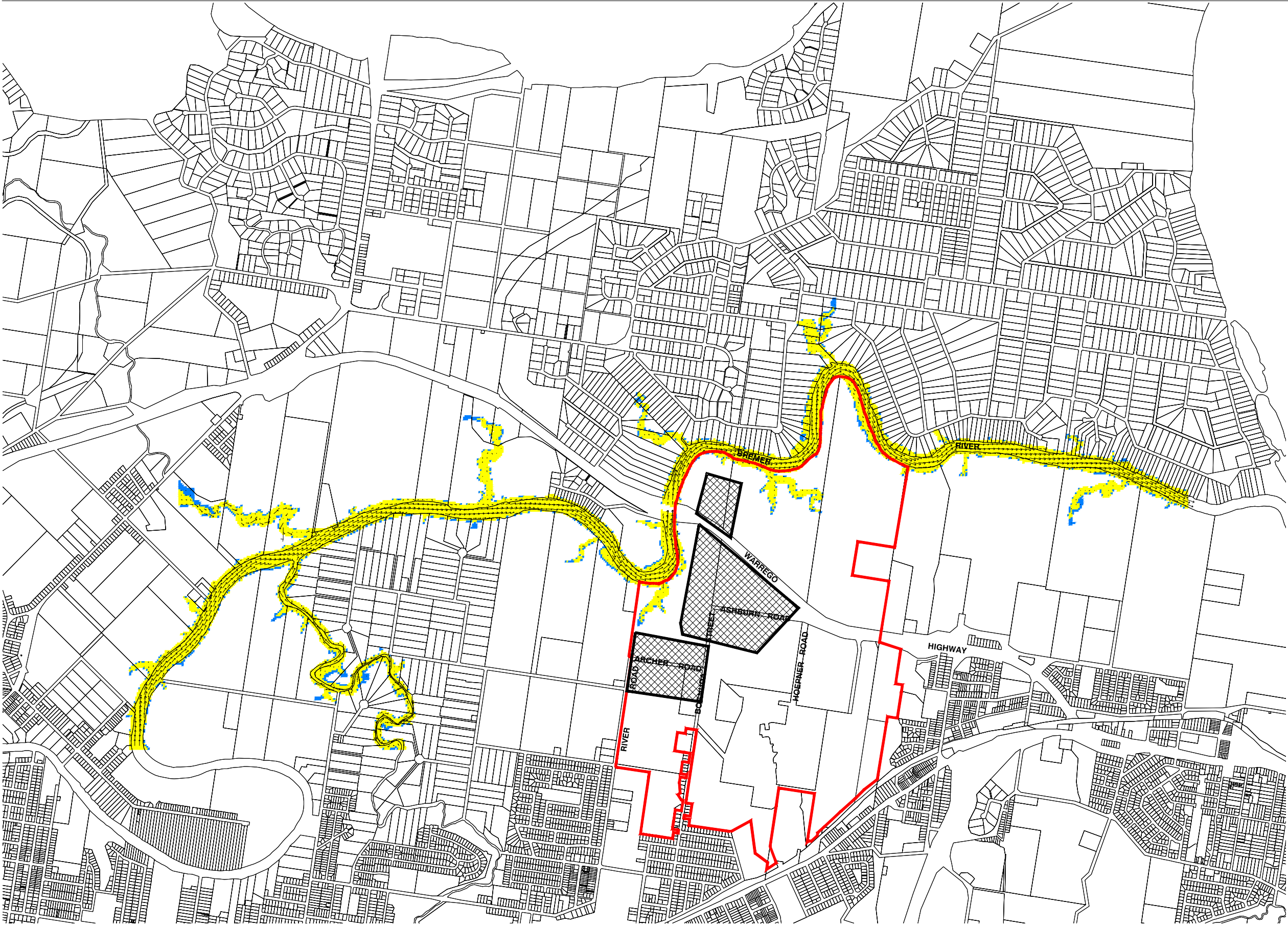


## **Appendix B.4**

### **Brisbane River Flood SOBEK 2D Existing Current Case**

#### **Results – Hazard (Safety Product)**





LEGEND

— Site Boundary

Existing Current Fill  
Boundary

VELOCITIES

→ 1m/s

HAZARD (vxd Product)

High  
Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08c\_Bris.dwg  
XREF's: xref-Results; xr-lpswich\_DC08\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

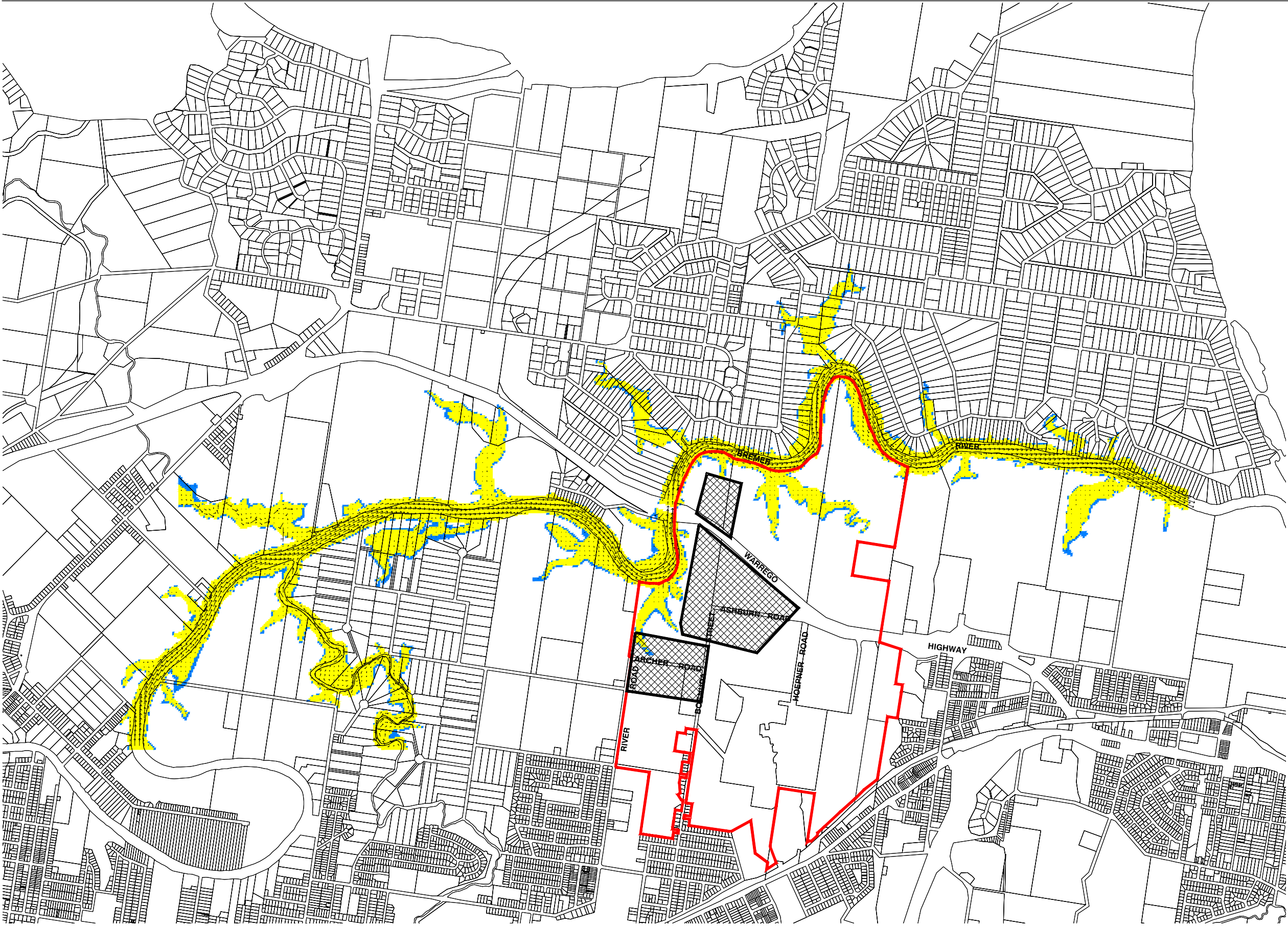
**FIGURE B.4.1**

**EXISTING CURRENT - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 5 YEAR EVENT (Bris\_E08c)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 2:43pm





LEGEND

— Site Boundary

Existing Current Fill  
Boundary

VELOCITIES

→ 1m/s

HAZARD (vxd Product)

High  
Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd

CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08c\_Bris.dwg

XREF's: xref-Results; xr-lpswich\_DC08\_MGA

**EXISTING CURRENT - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 10 YEAR EVENT (Bris\_E08c)**

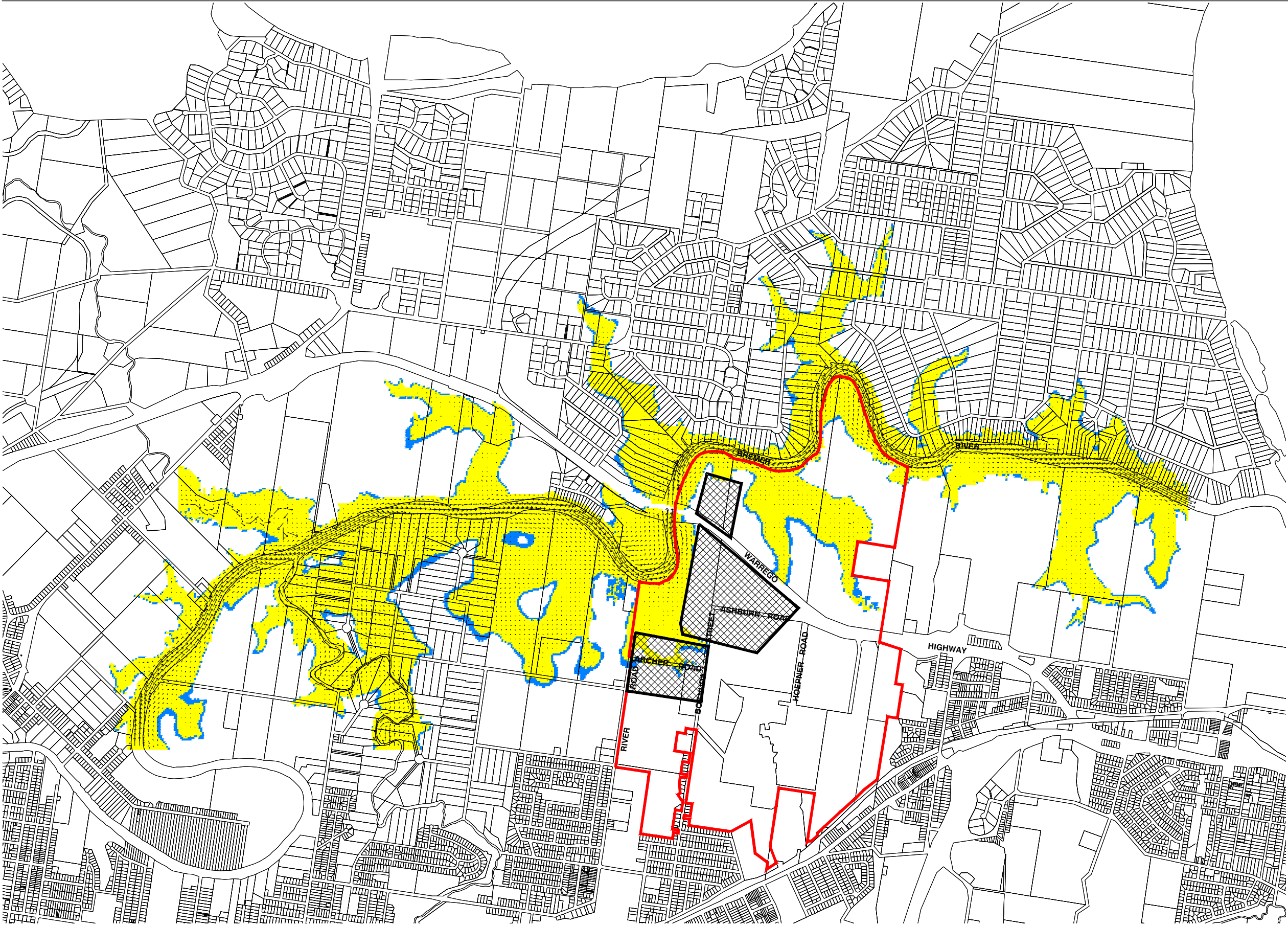
Scale 1:25000 (A3)

**FIGURE B.4.2**

Project No.: LJ8714


PRINT DATE: 11 May, 2012 - 2:43pm






LEGEND

 Site Boundary

 Existing Current Fill  
Boundary

VELOCITIES

 1m/s

HAZARD (vxd Product)

 High  
 Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd  
and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or  
form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by  
the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not  
and shall not assume any responsibility or liability whatsoever to any third party arising out of any  
use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08c\_Bris.dwg  
XREF's: xref-Results; xr-lpswich\_DC08\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

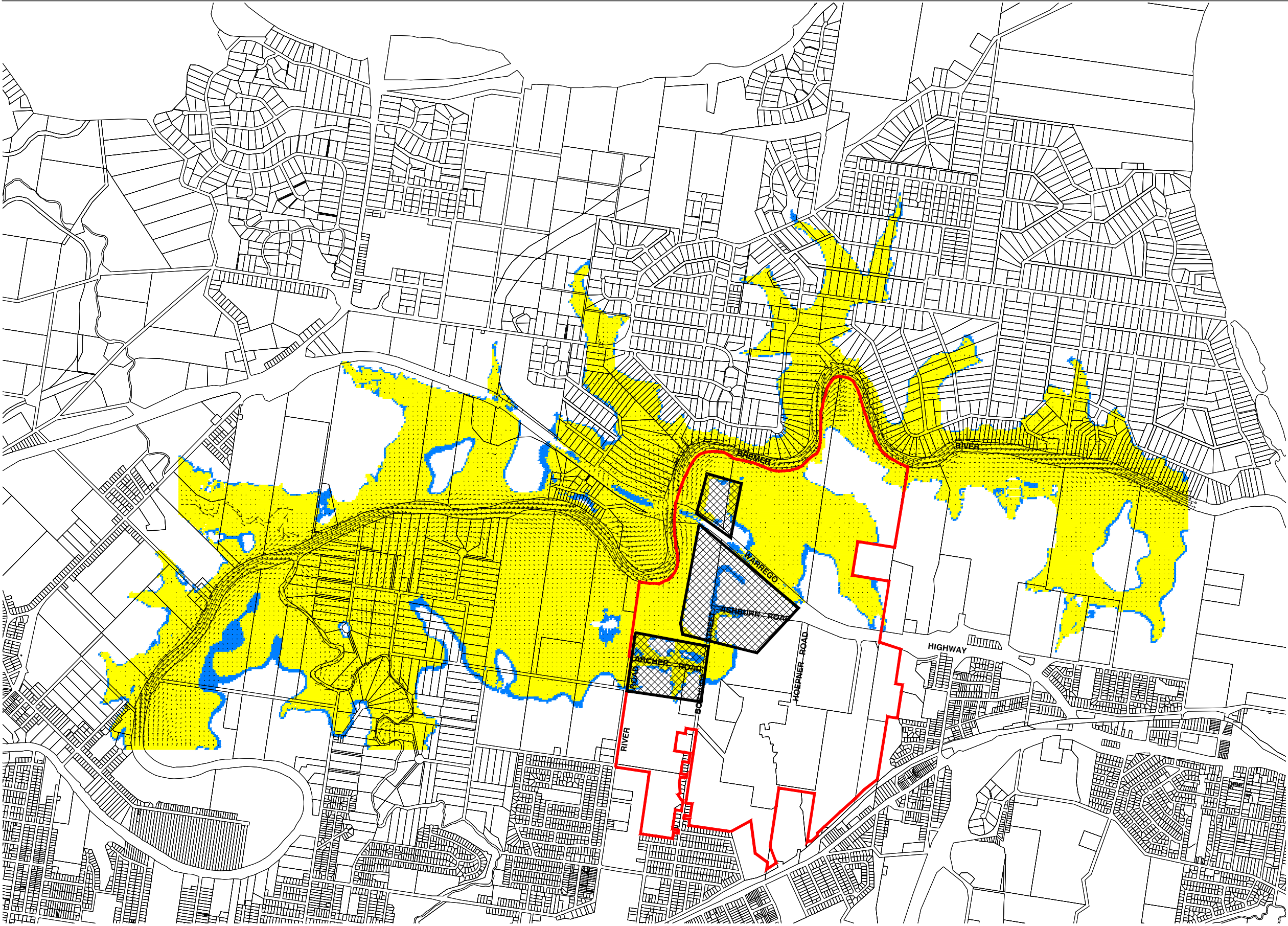
**FIGURE B.4.3**

**EXISTING CURRENT - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 20 YEAR EVENT (Bris\_E08c)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 2:44pm





LEGEND

— Site Boundary

Existing Current Fill  
Boundary

VELOCITIES

→ 1m/s

HAZARD (vxd Product)

High  
Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08c\_Bris.dwg  
XREF's: xref-Results; xr-lpswich\_DC08\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

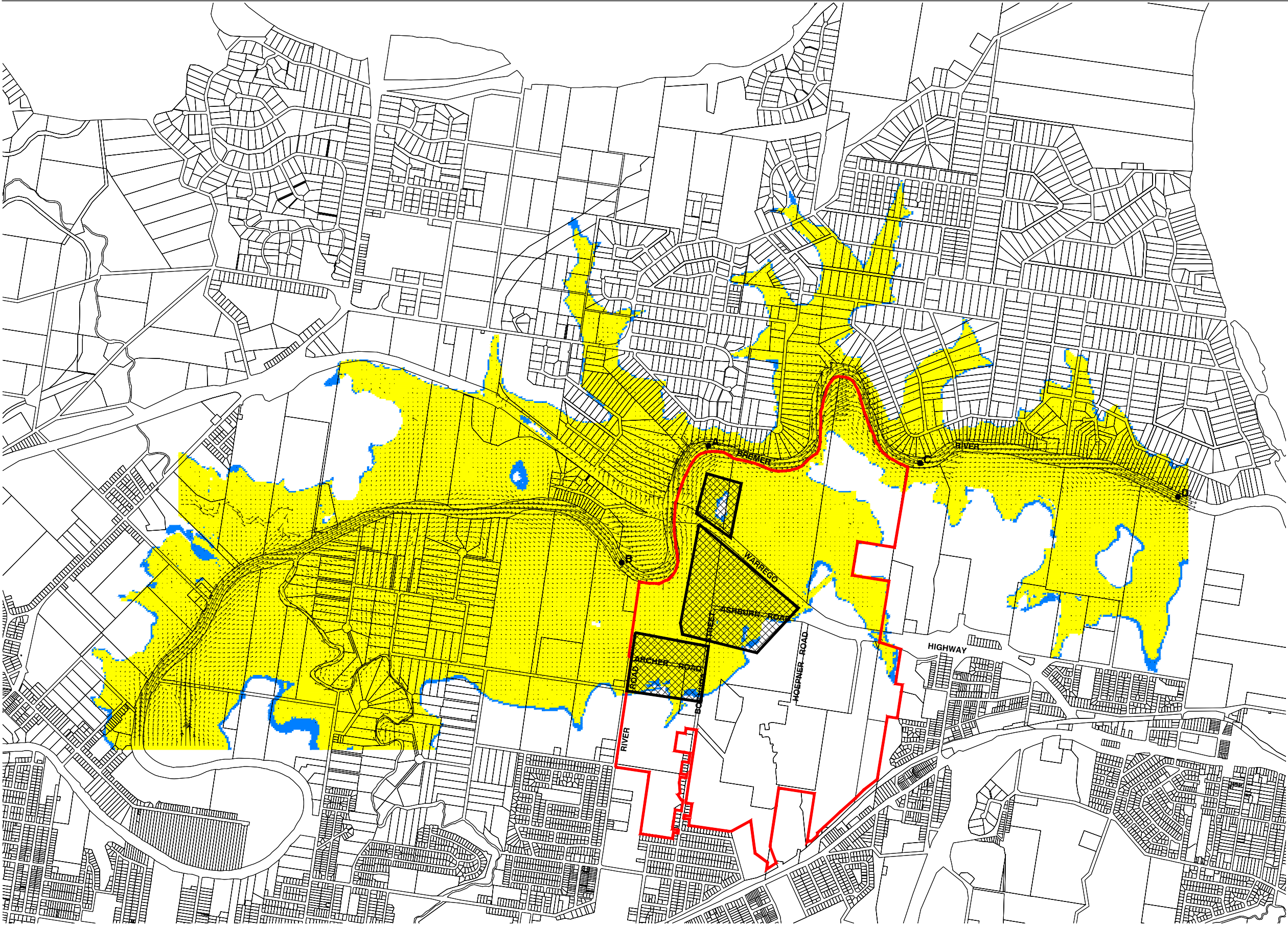
**FIGURE B.4.4**

**EXISTING CURRENT - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 50 YEAR EVENT (Bris\_E08c)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 2:44pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Existing Current Fill Boundary

**VELOCITIES**

→ 1m/s

**HAZARD (vxd Product)**

-  High
-  Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App B\Figure\_R3v5\_E08d\_Bris.dwg  
XREF's: xref-Results; xref-lpswich\_DC08\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

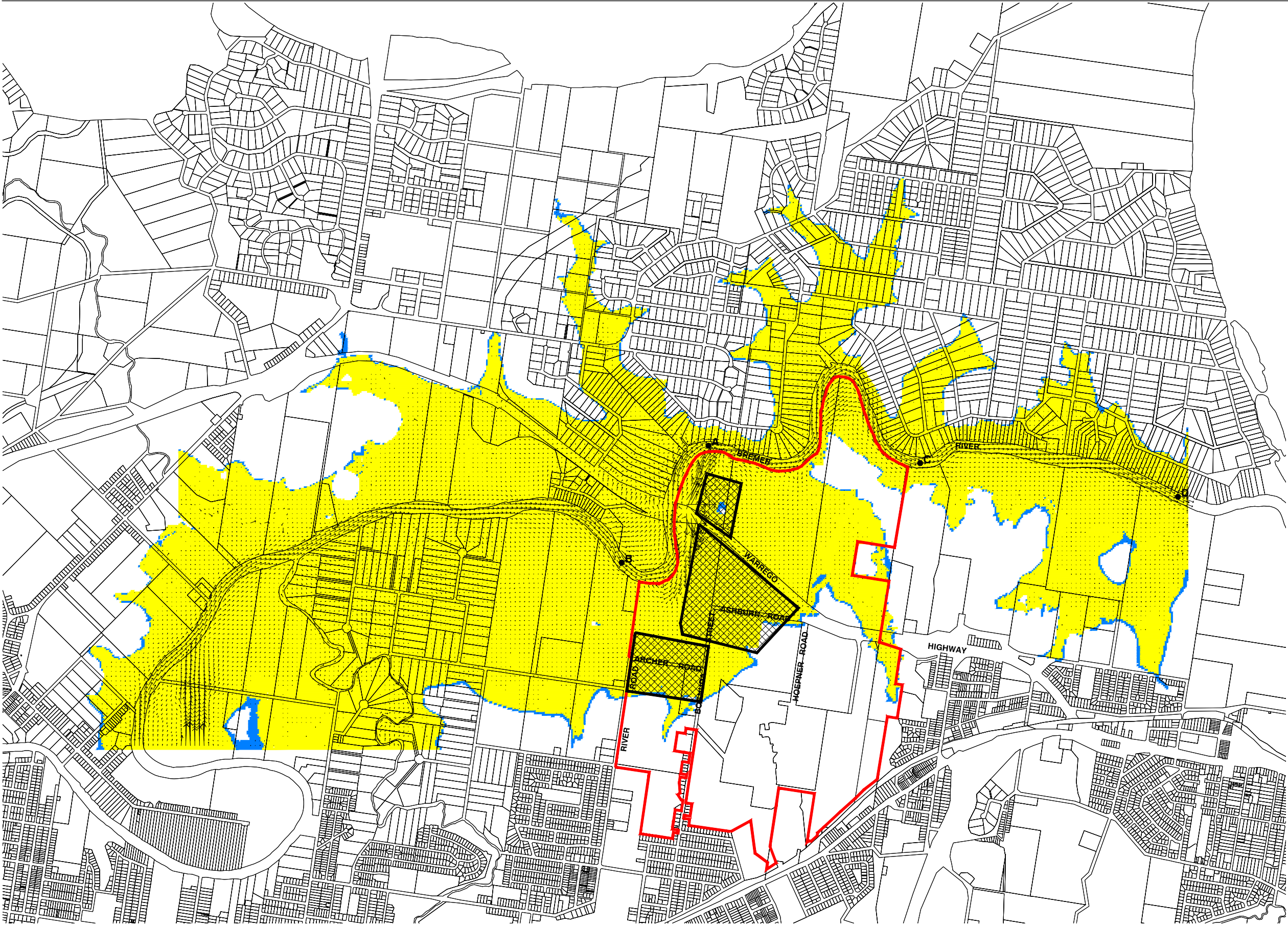
**FIGURE B.4.5**

**EXISTING CURRENT - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 100 YEAR EVENT (Bris\_E08d)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 4:58pm





© Cardno Lawson Trelor Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Trelor Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Trelor Pty Ltd.

This document is produced by Cardno Lawson Trelor Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Trelor Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App B\Figure\_R3v5\_E08d\_Bris.dwg  
XREF's: xref-Results; xref-lpswich\_DCDB\_MGA

Scale 1:25000 (A3)

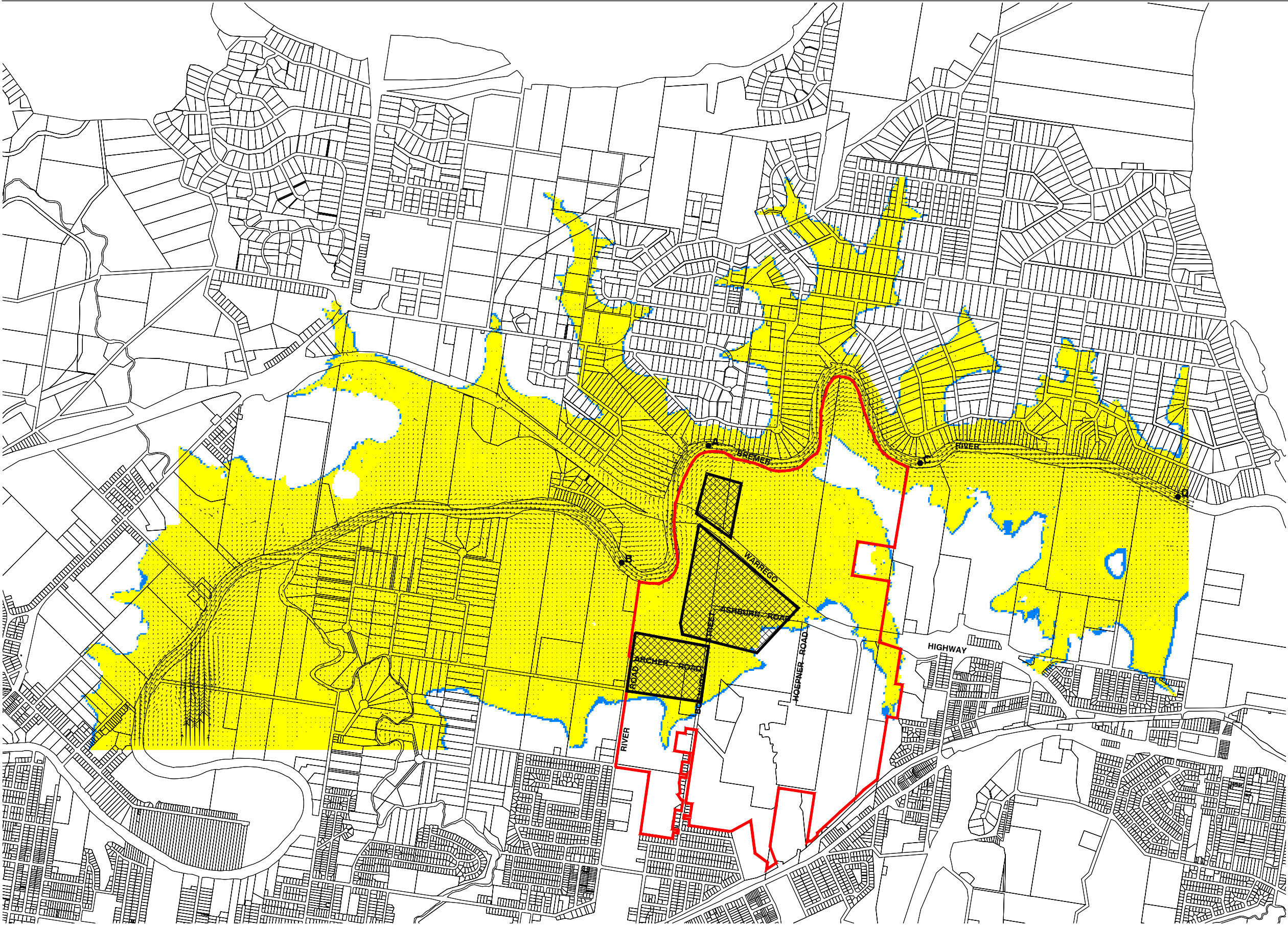
**FIGURE B.4.6**

**EXISTING CURRENT - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 200 YEAR EVENT (Bris\_E08d)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 4:56pm





**LEGEND**

- Site Boundary
- Reporting Points
- Existing Current Fill Boundary

**VELOCITIES**

1m/s

**HAZARD (vxd Product)**

- High
- Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\VR3v5\_Masterplan\_Flooding\Appendices\App B\Figure\_R3v5\_E08d\_Bris.dwg  
XREF's: xref-Results; xref-lpswich\_DC08\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE B.4.7**

**EXISTING CURRENT - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 500 YEAR EVENT (Bris\_E08d)**

Project No.: LJ8714

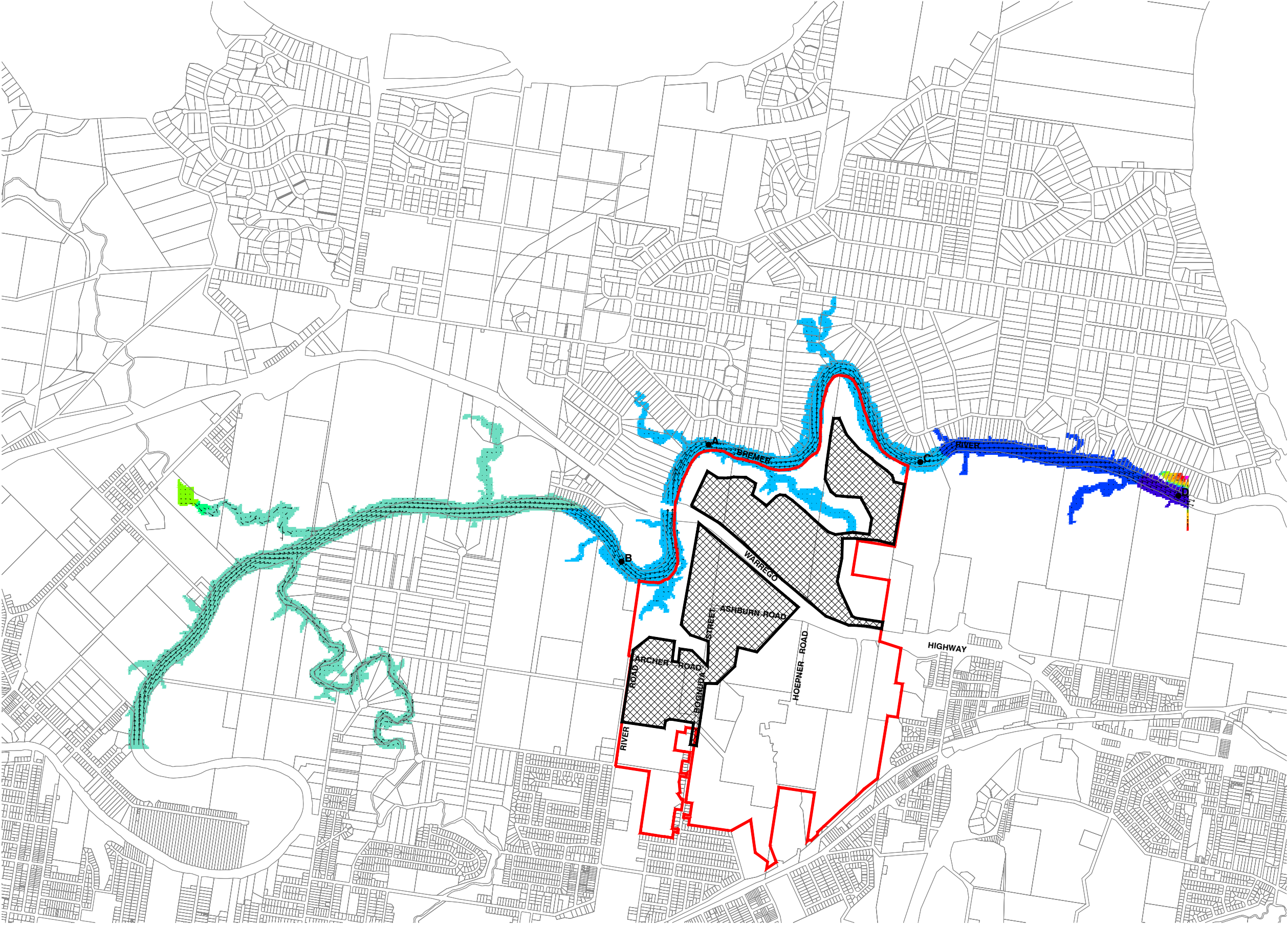
PRINT DATE: 11 May, 2012 - 4:57pm

## **Appendix C.1**

### **Brisbane River Flood SOBEK 2D Masterplan Ultimate**

#### **Case Results – Water Surface Level**





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 17.00
- 16.00 to 17.00
- 15.00 to 16.00
- 14.00 to 15.00
- 13.00 to 14.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- Below 5.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Inschw; DFIGR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE C.1.1**

**MASTERPLAN - WATER SURFACE LEVELS - SKM ULTIMATE 5 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:46pm

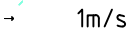


















**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

**WATER SURFACE LEVEL (mAHD)**

-  Above 17.00
-  16.00 to 17.00
-  15.00 to 16.00
-  14.00 to 15.00
-  13.00 to 14.00
-  12.00 to 13.00
-  11.00 to 12.00
-  10.00 to 11.00
-  9.00 to 10.00
-  8.00 to 9.00
-  7.00 to 8.00
-  6.00 to 7.00
-  5.00 to 6.00
-  Below 5.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Insur; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE C.1.2**

**MASTERPLAN - WATER SURFACE LEVELS - SKM ULTIMATE 10 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:46pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 17.00
- 16.00 to 17.00
- 15.00 to 16.00
- 14.00 to 15.00
- 13.00 to 14.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- Below 5.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref-Results: vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

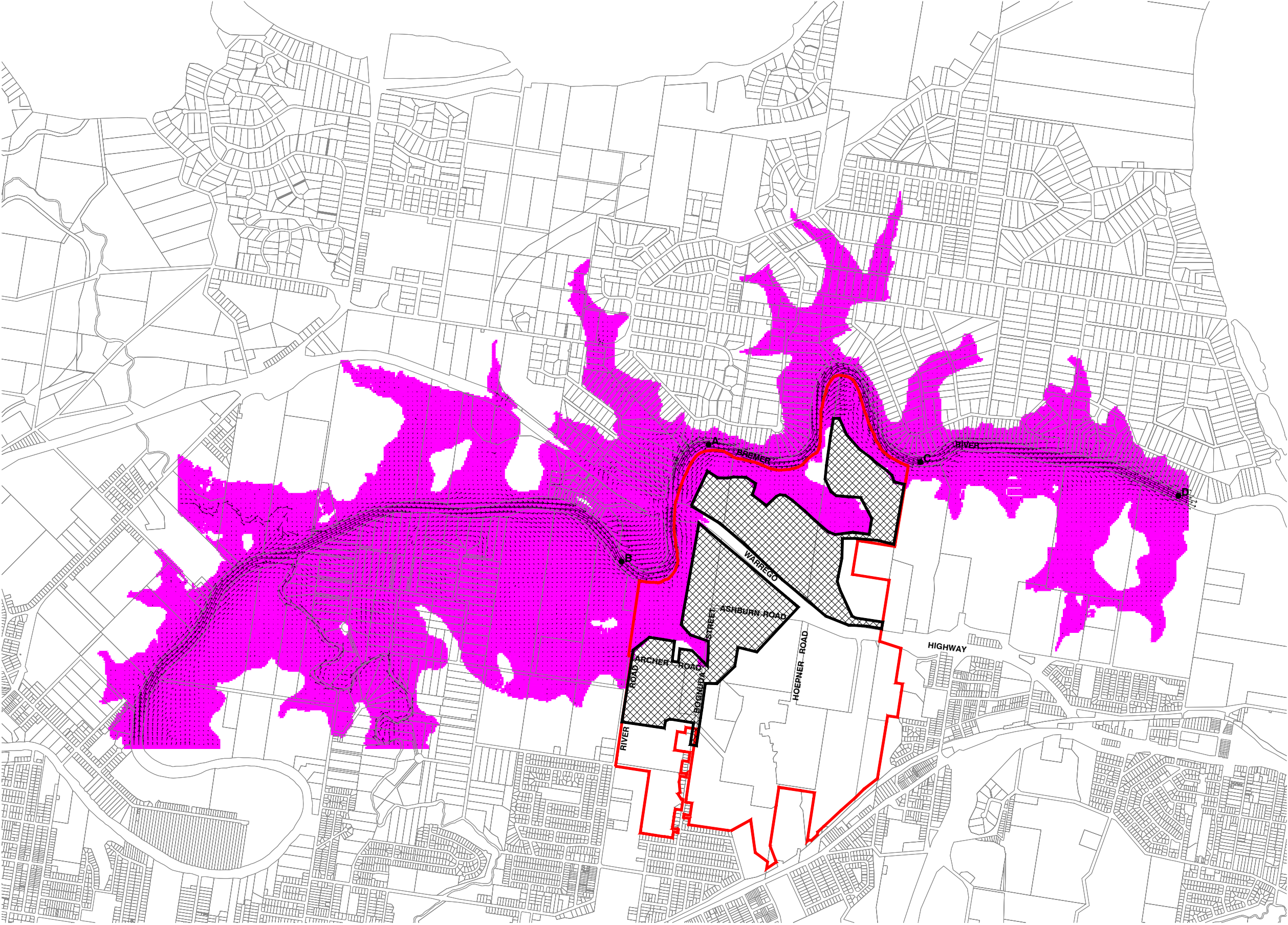
**FIGURE C.1.3**

**MASTERPLAN - WATER SURFACE LEVELS - SKM ULTIMATE 20 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:47pm


















**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

**WATER SURFACE LEVEL (mAHD)**

-  Above 17.00
-  16.00 to 17.00
-  15.00 to 16.00
-  14.00 to 15.00
-  13.00 to 14.00
-  12.00 to 13.00
-  11.00 to 12.00
-  10.00 to 11.00
-  9.00 to 10.00
-  8.00 to 9.00
-  7.00 to 8.00
-  6.00 to 7.00
-  5.00 to 6.00
-  Below 5.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

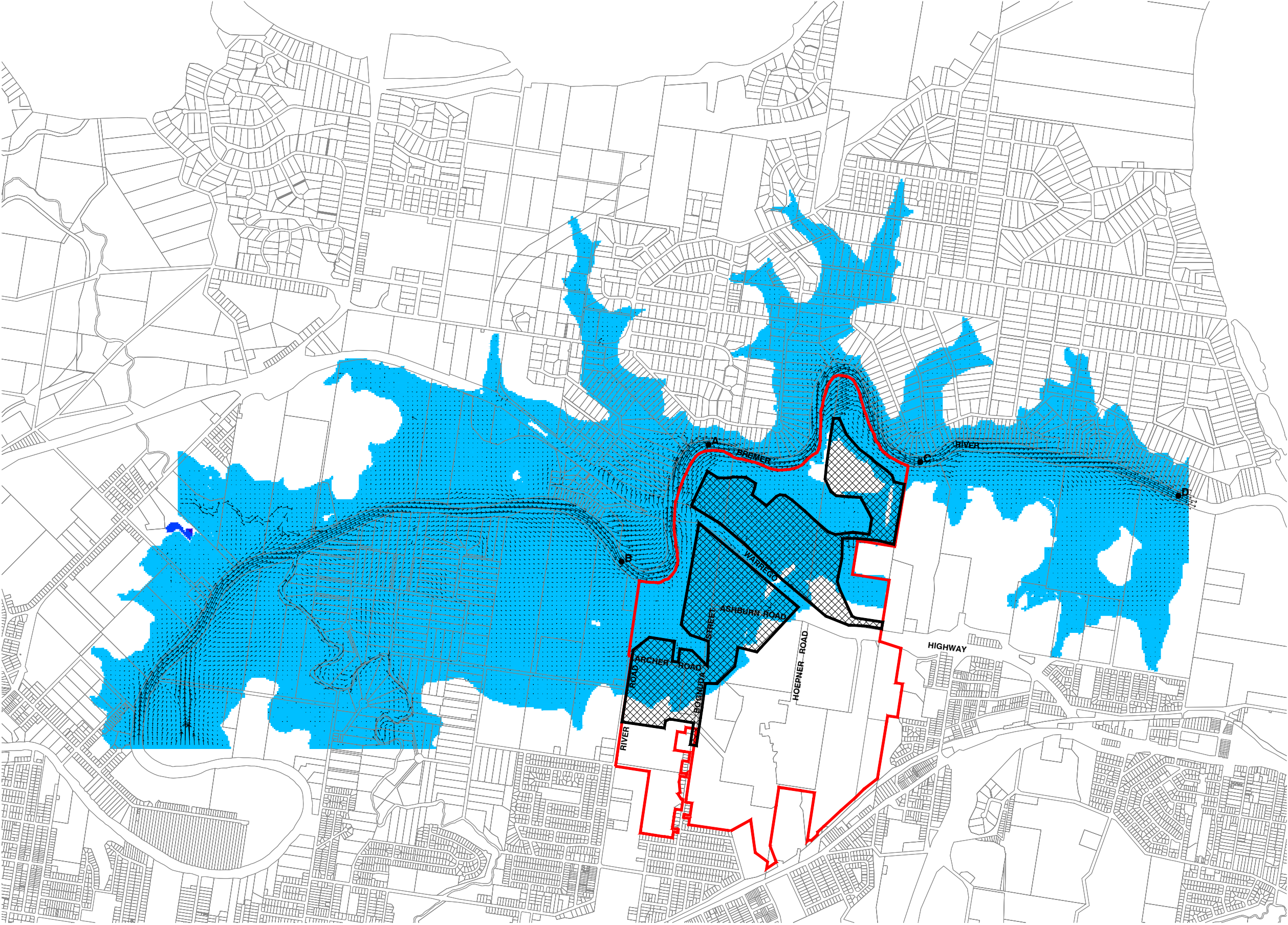
**FIGURE C.1.4**

**MASTERPLAN - WATER SURFACE LEVELS - SKM ULTIMATE 50 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:47pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 21.00
- 20.75 to 21.00
- 20.50 to 20.75
- 20.25 to 20.50
- 20.00 to 20.25
- 19.75 to 20.00
- 19.50 to 19.75
- 19.25 to 19.50
- 19.00 to 19.25
- 18.75 to 19.00
- 18.50 to 18.75
- 18.25 to 18.50
- 18.00 to 18.25
- Below 18.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

Scale 1:25000 (A3)  
**FIGURE C.1.5**  
**MASTERPLAN - WATER SURFACE LEVELS - SKM ULTIMATE 100 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:47pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 21.00
- 20.75 to 21.00
- 20.50 to 20.75
- 20.25 to 20.50
- 20.00 to 20.25
- 19.75 to 20.00
- 19.50 to 19.75
- 19.25 to 19.50
- 19.00 to 19.25
- 18.75 to 19.00
- 18.50 to 18.75
- 18.25 to 18.50
- 18.00 to 18.25
- Below 18.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref-Results: vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE C.1.6**

**MASTERPLAN - WATER SURFACE LEVELS - SKM ULTIMATE 200 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:48pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 21.00
- 20.75 to 21.00
- 20.50 to 20.75
- 20.25 to 20.50
- 20.00 to 20.25
- 19.75 to 20.00
- 19.50 to 19.75
- 19.25 to 19.50
- 19.00 to 19.25
- 18.75 to 19.00
- 18.50 to 18.75
- 18.25 to 18.50
- 18.00 to 18.25
- Below 18.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref-Results: vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE C.1.7**

**MASTERPLAN - WATER SURFACE LEVELS - SKM ULTIMATE 500 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

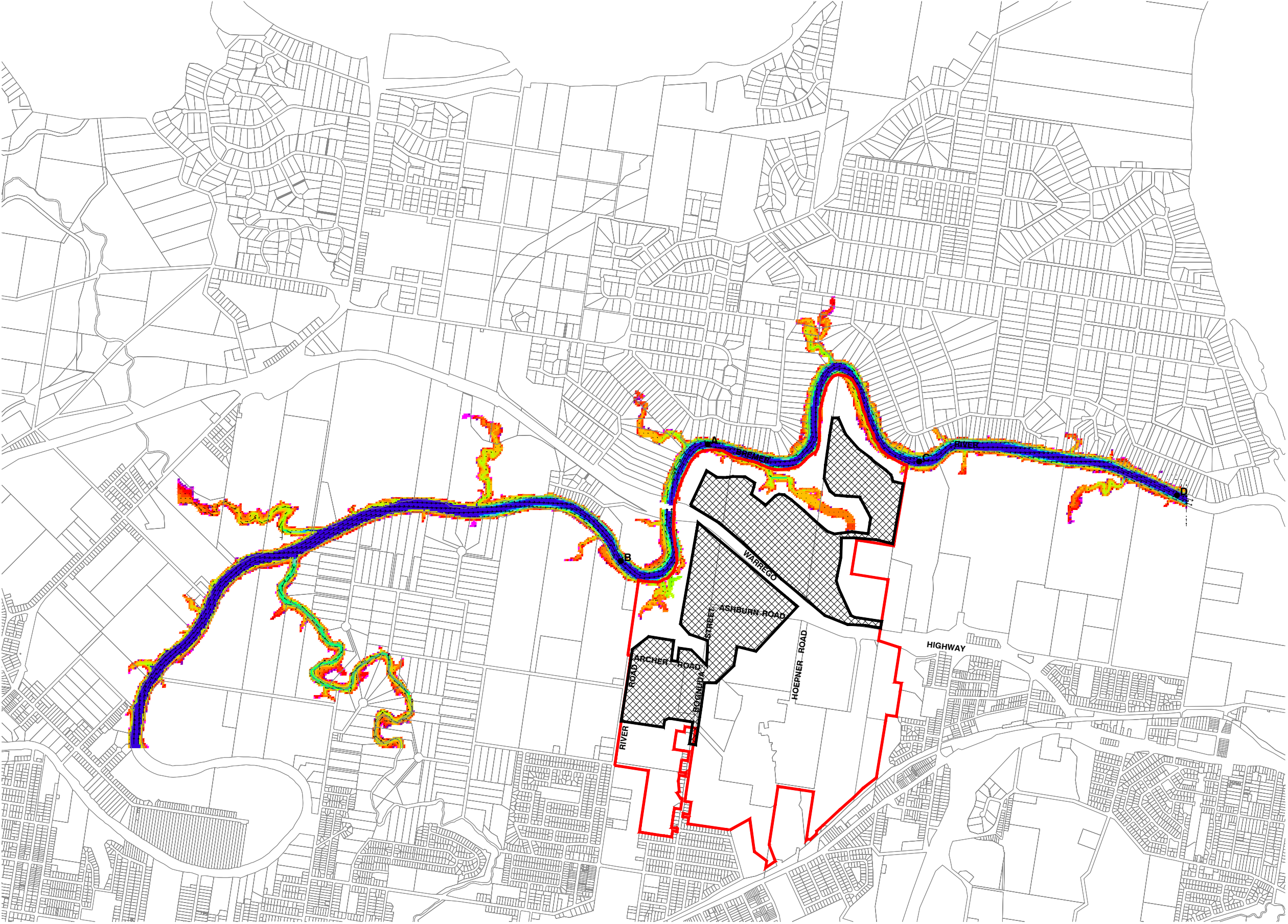
PRINT DATE: 11 May, 2012 - 6:48pm

## **Appendix C.2**

### **Brisbane River Flood SOBEK 2D Masterplan Ultimate**

#### **Case Results – Depth**





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR; MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

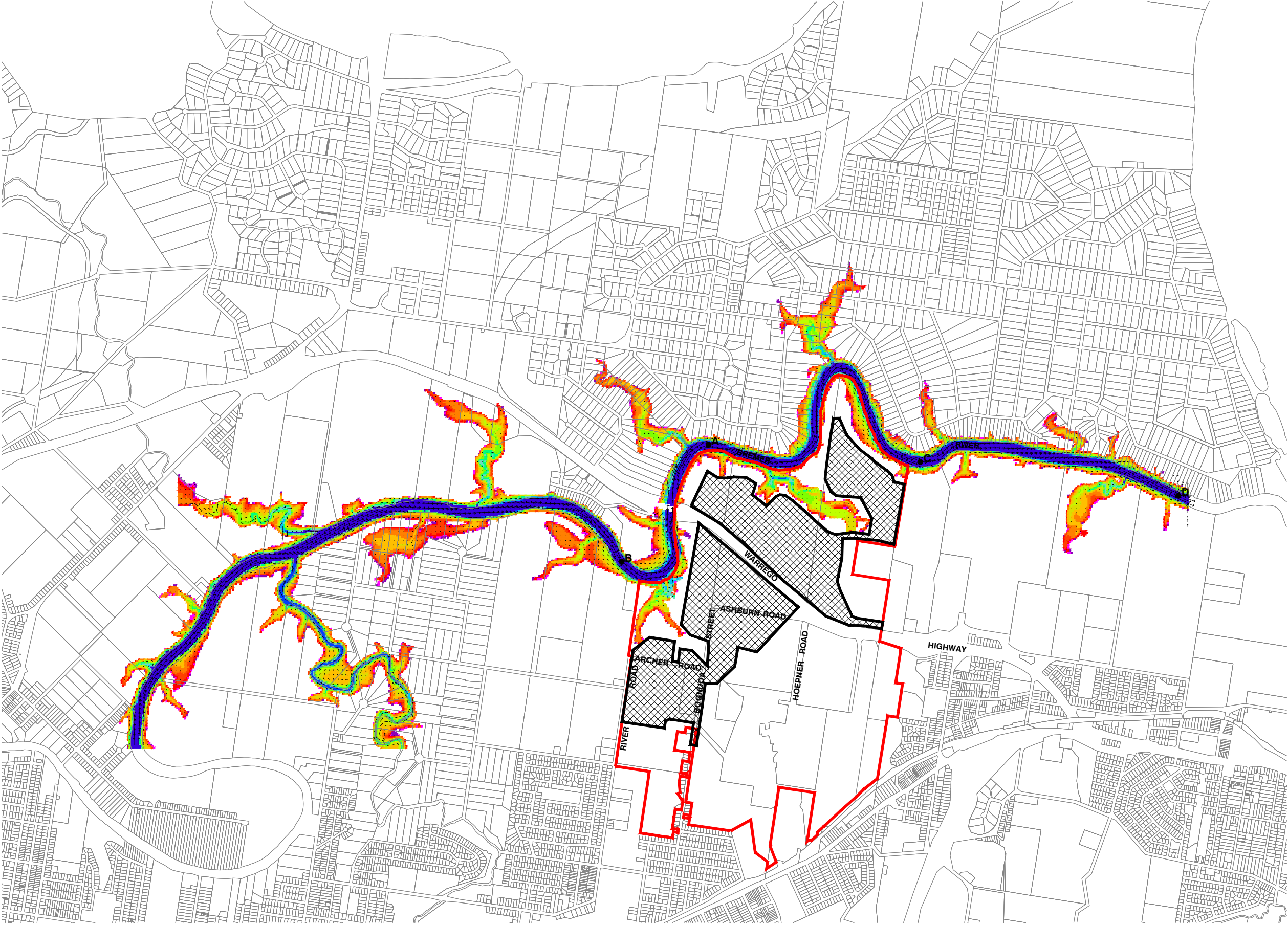
**FIGURE C.2.1**

**MASTERPLAN - DEPTH - SKM ULTIMATE 5 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:48pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF: vref\_Results\_vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

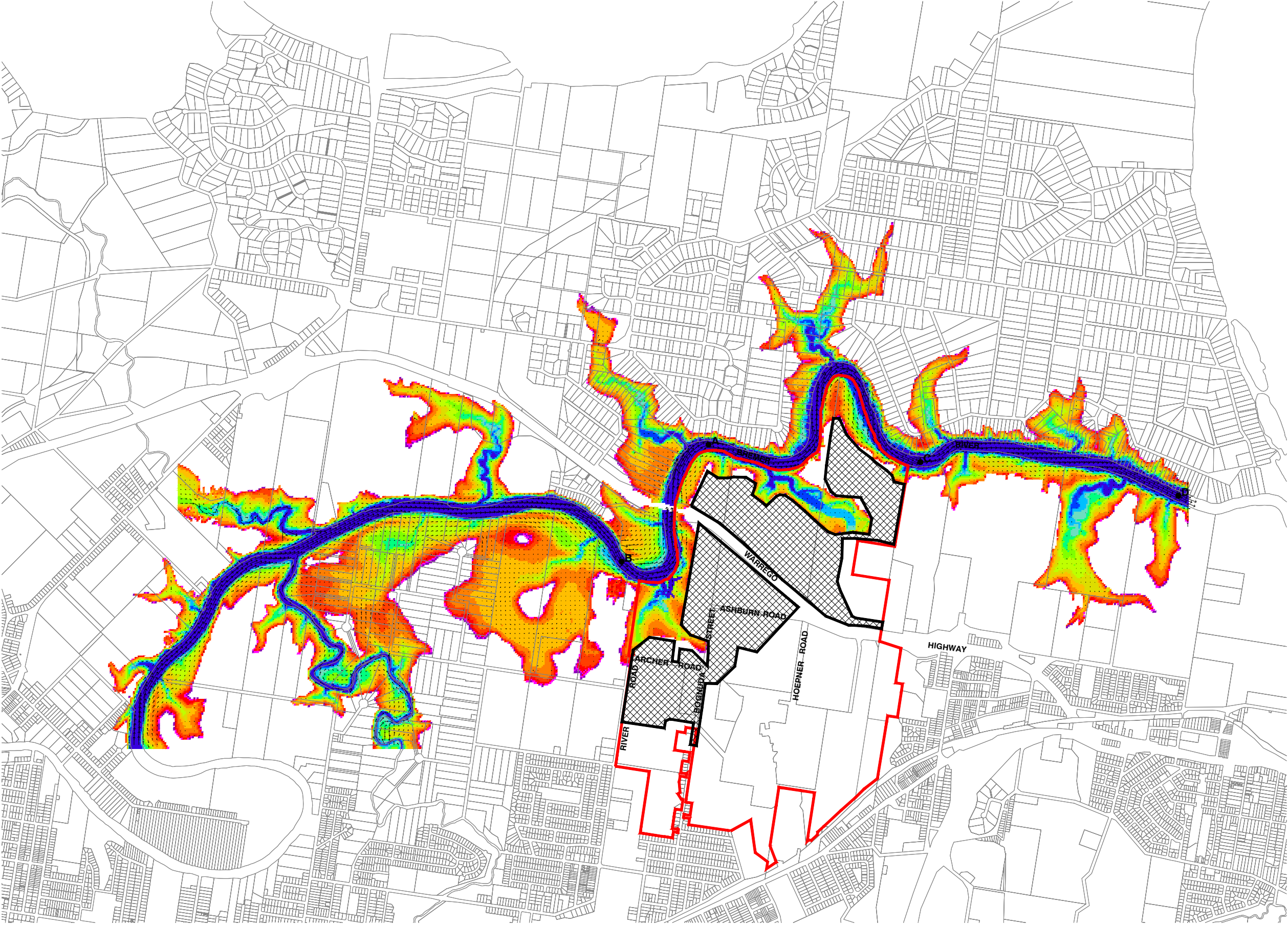
**FIGURE C.2.2**

**MASTERPLAN - DEPTH - SKM ULTIMATE 10 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:48pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

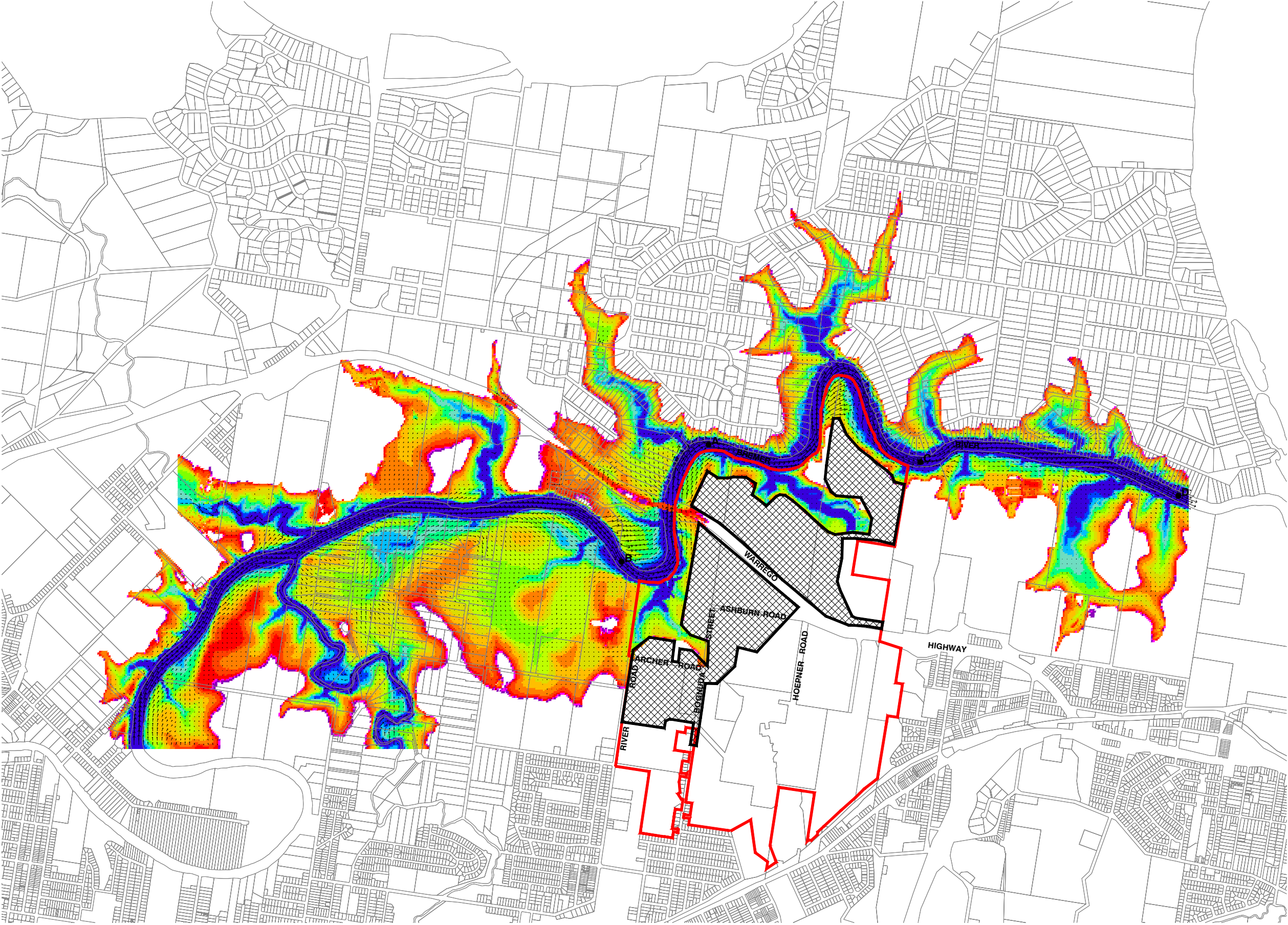
**FIGURE C.2.3**

**MASTERPLAN - DEPTH - SKM ULTIMATE 20 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:49pm




















**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

**DEPTH (m)**

-  Above 10.00
-  9.00 to 10.00
-  8.00 to 9.00
-  7.00 to 8.00
-  6.00 to 7.00
-  5.00 to 6.00
-  4.00 to 5.00
-  3.00 to 4.00
-  2.00 to 3.00
-  1.00 to 2.00
-  0.50 to 1.00
-  0.20 to 0.50
-  0.10 to 0.20
-  0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

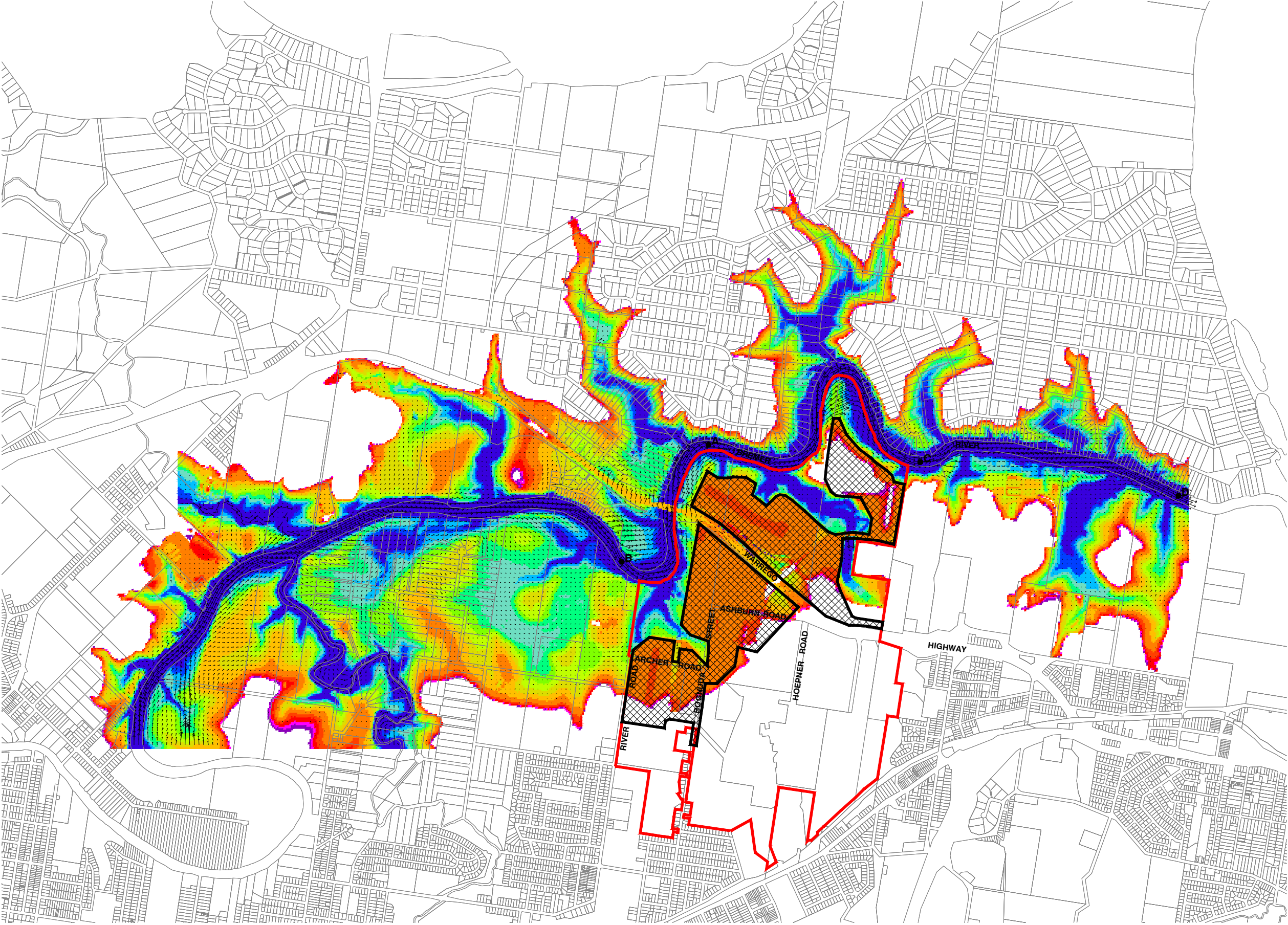
**FIGURE C.2.4**

**MASTERPLAN - DEPTH - SKM ULTIMATE 50 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:50pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

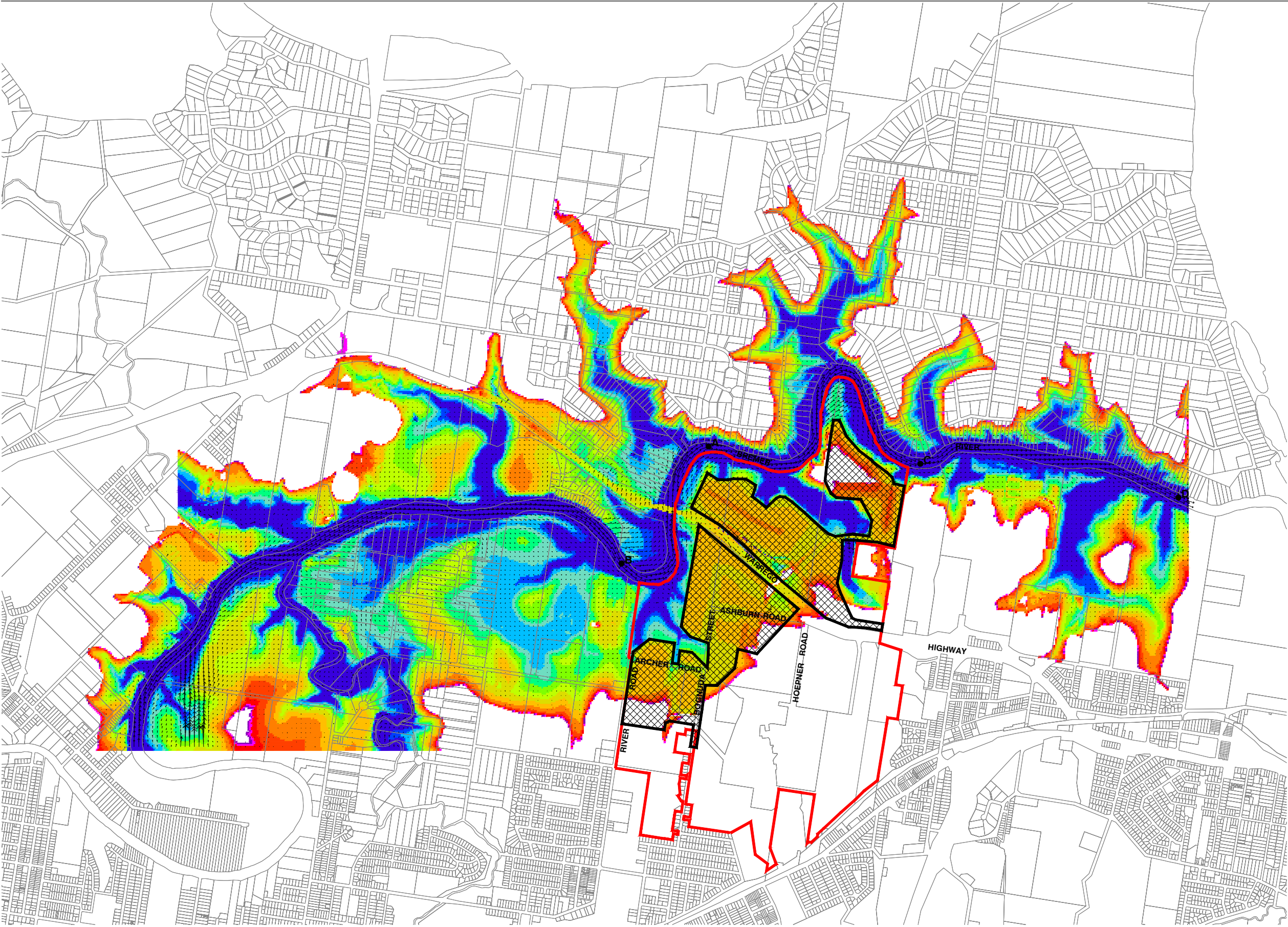
**FIGURE C.2.5**

**MASTERPLAN - DEPTH - SKM ULTIMATE 100 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:49pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref-Results: vr-inswich DFIGR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

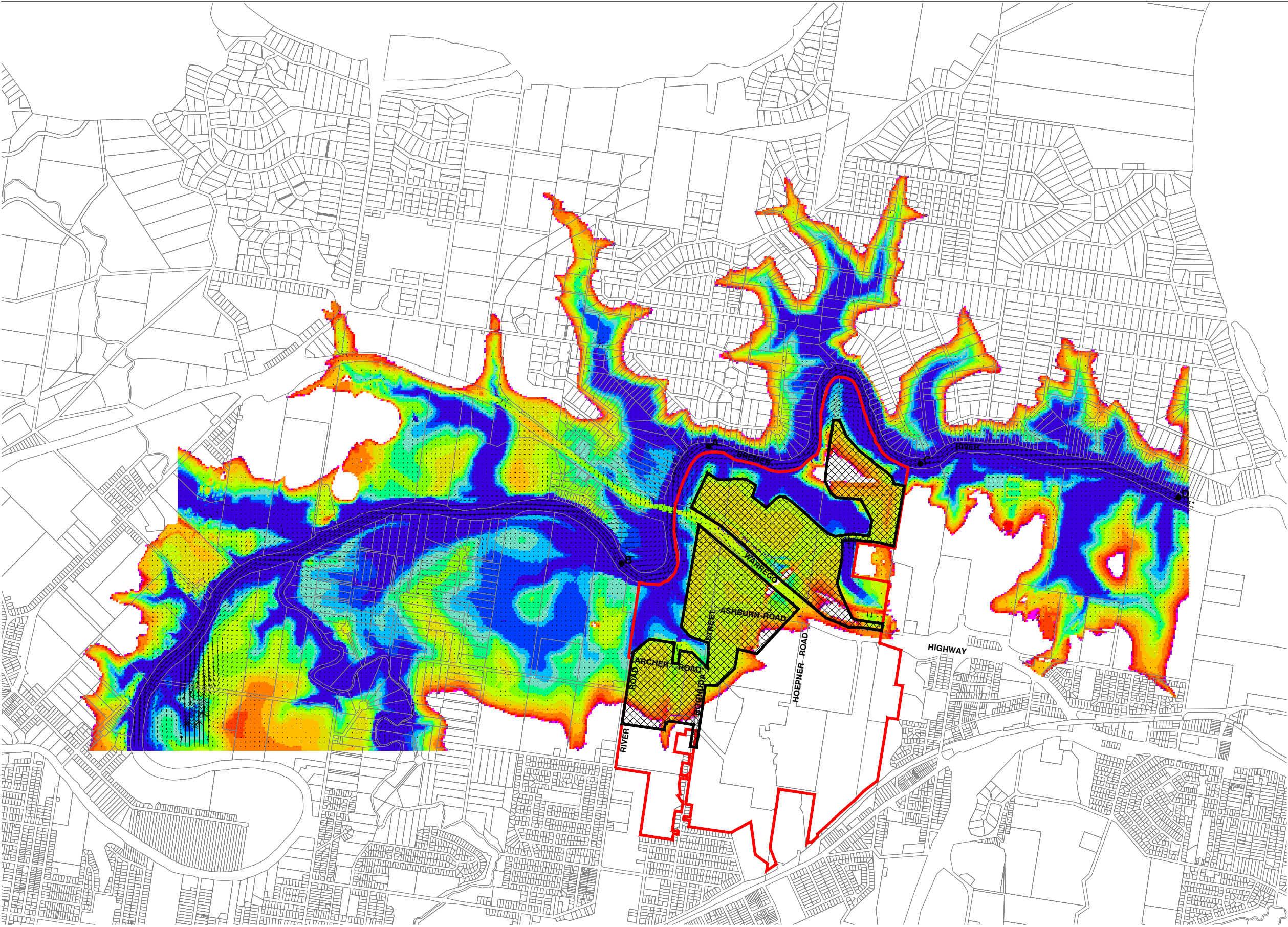
**FIGURE C.2.6**

**MASTERPLAN - DEPTH - SKM ULTIMATE 200 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:50pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE C.2.7**

**MASTERPLAN - DEPTH - SKM ULTIMATE 500 YEAR EVENT (Bris\_D14a)**

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.  
This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref-Results: vr-inswich DGNR MGA

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:51pm

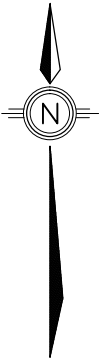
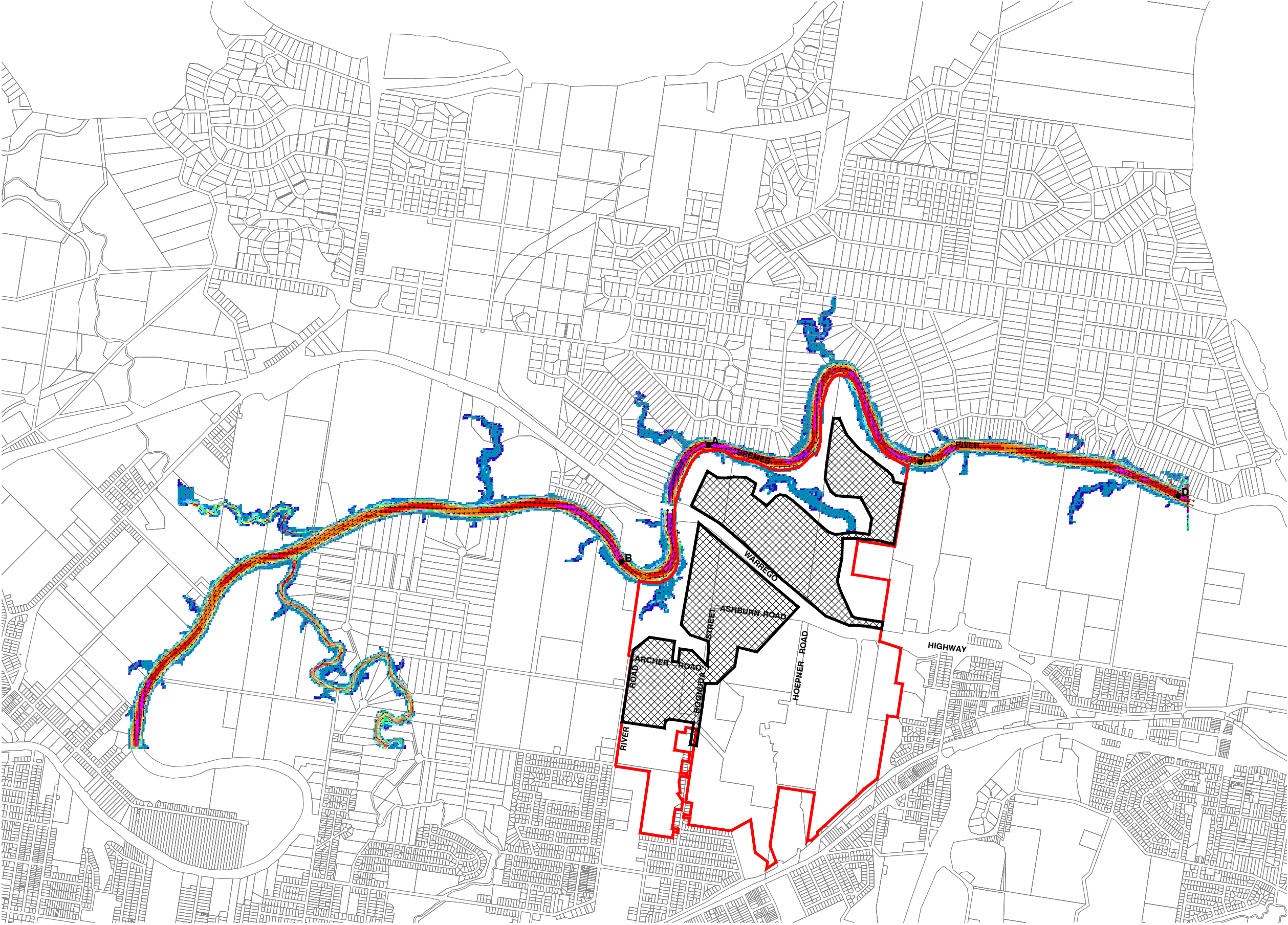


## **Appendix C.3**

### **Brisbane River Flood SOBEK 2D Masterplan Ultimate**

#### **Case Results – Speed**





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref-Results; vref-inswch; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

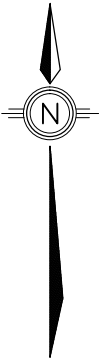
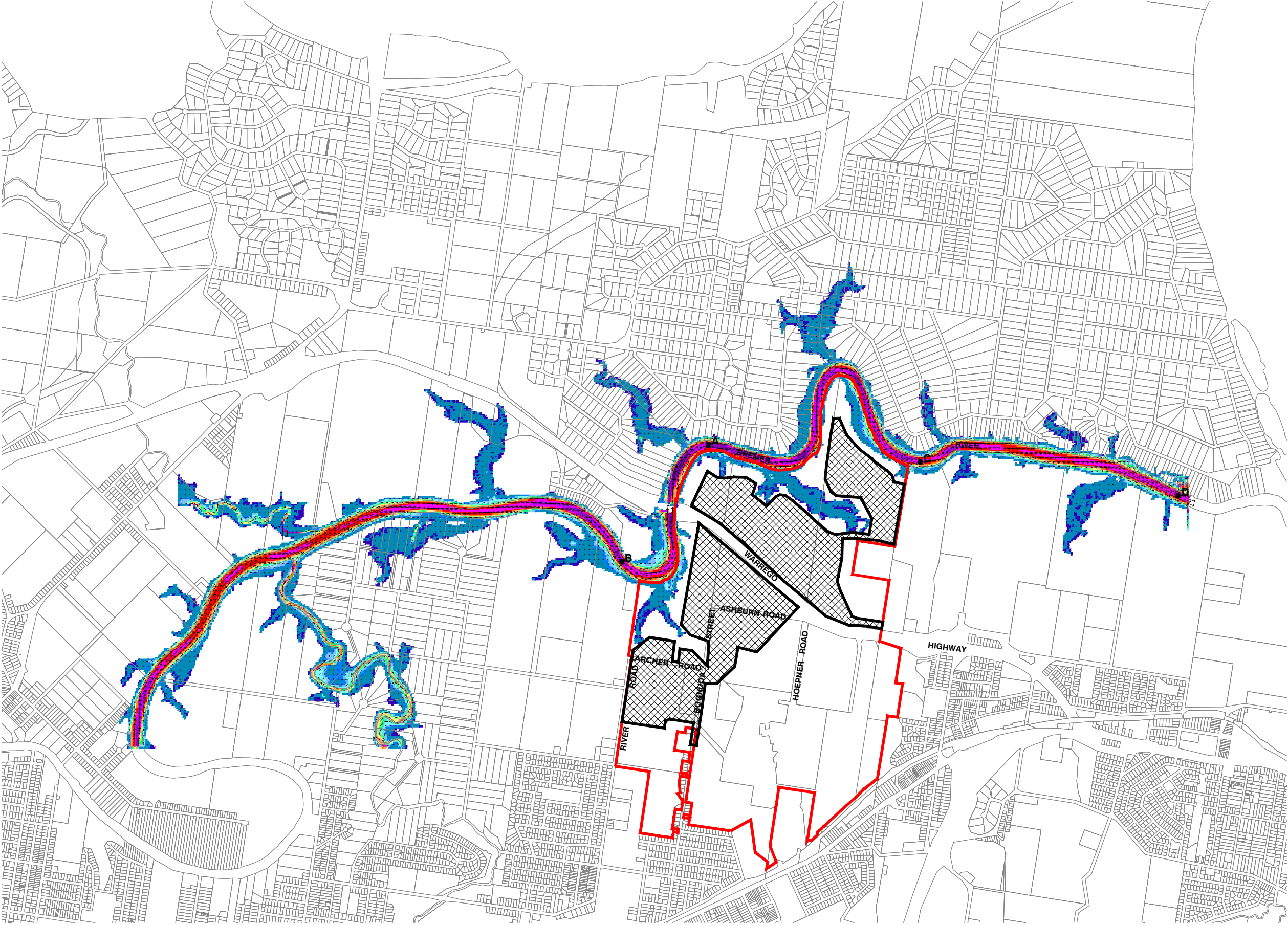
**FIGURE C.3.1**

**MASTERPLAN - SPEED - SKM ULTIMATE 5 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:50pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE C.3.2**

**MASTERPLAN - SPEED - SKM ULTIMATE 10 YEAR EVENT (Bris\_D14)**

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.  
This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

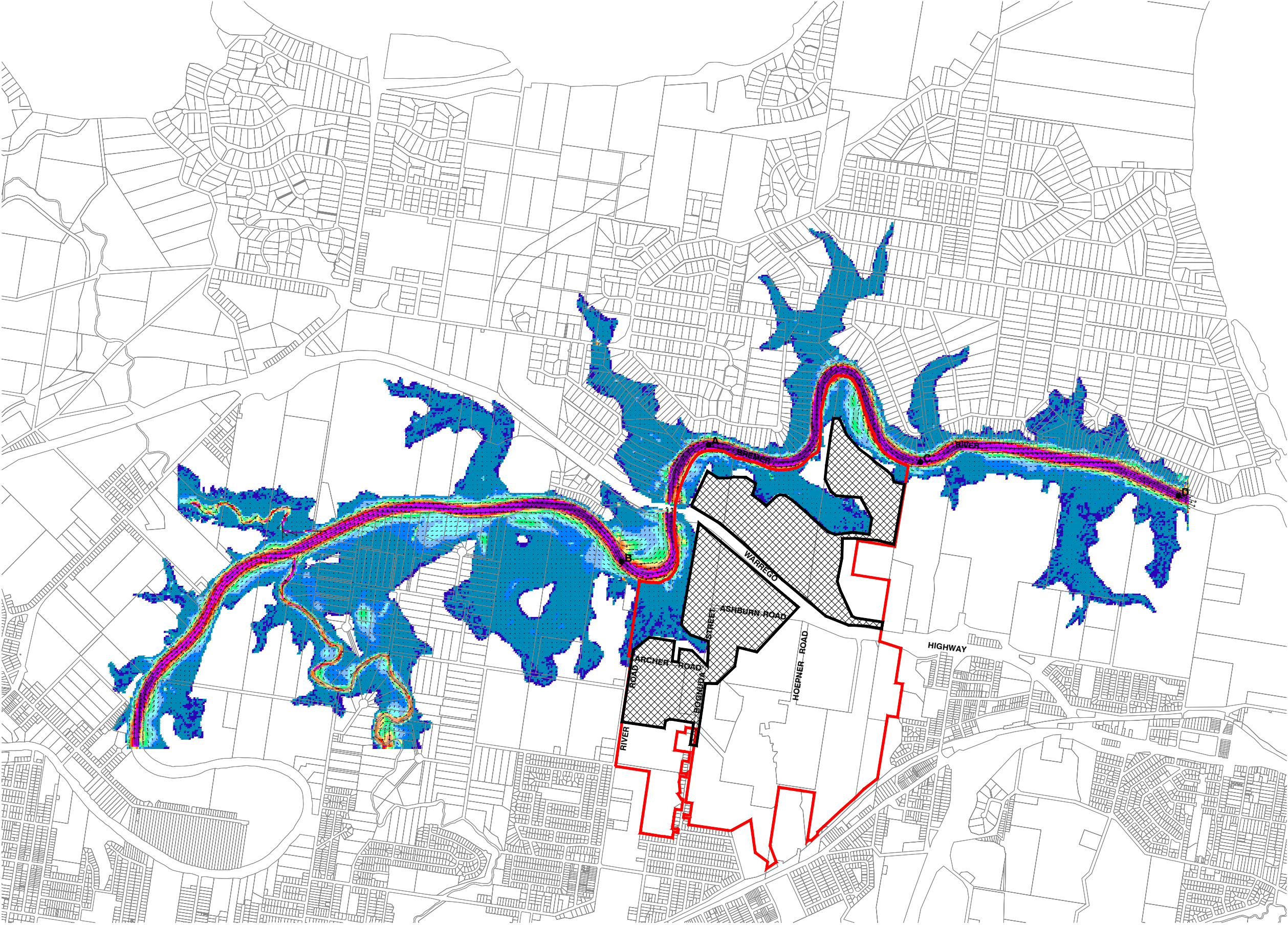
Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR MGA

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:51pm

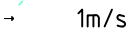




















**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

**SPEED (m/s)**

-  Above 2.00
-  1.80 to 2.00
-  1.60 to 1.80
-  1.40 to 1.60
-  1.20 to 1.40
-  1.00 to 1.20
-  0.90 to 1.00
-  0.80 to 0.90
-  0.70 to 0.80
-  0.60 to 0.70
-  0.50 to 0.60
-  0.40 to 0.50
-  0.30 to 0.40
-  0.20 to 0.30
-  0.01 to 0.20
-  Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF: vref-Results: vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

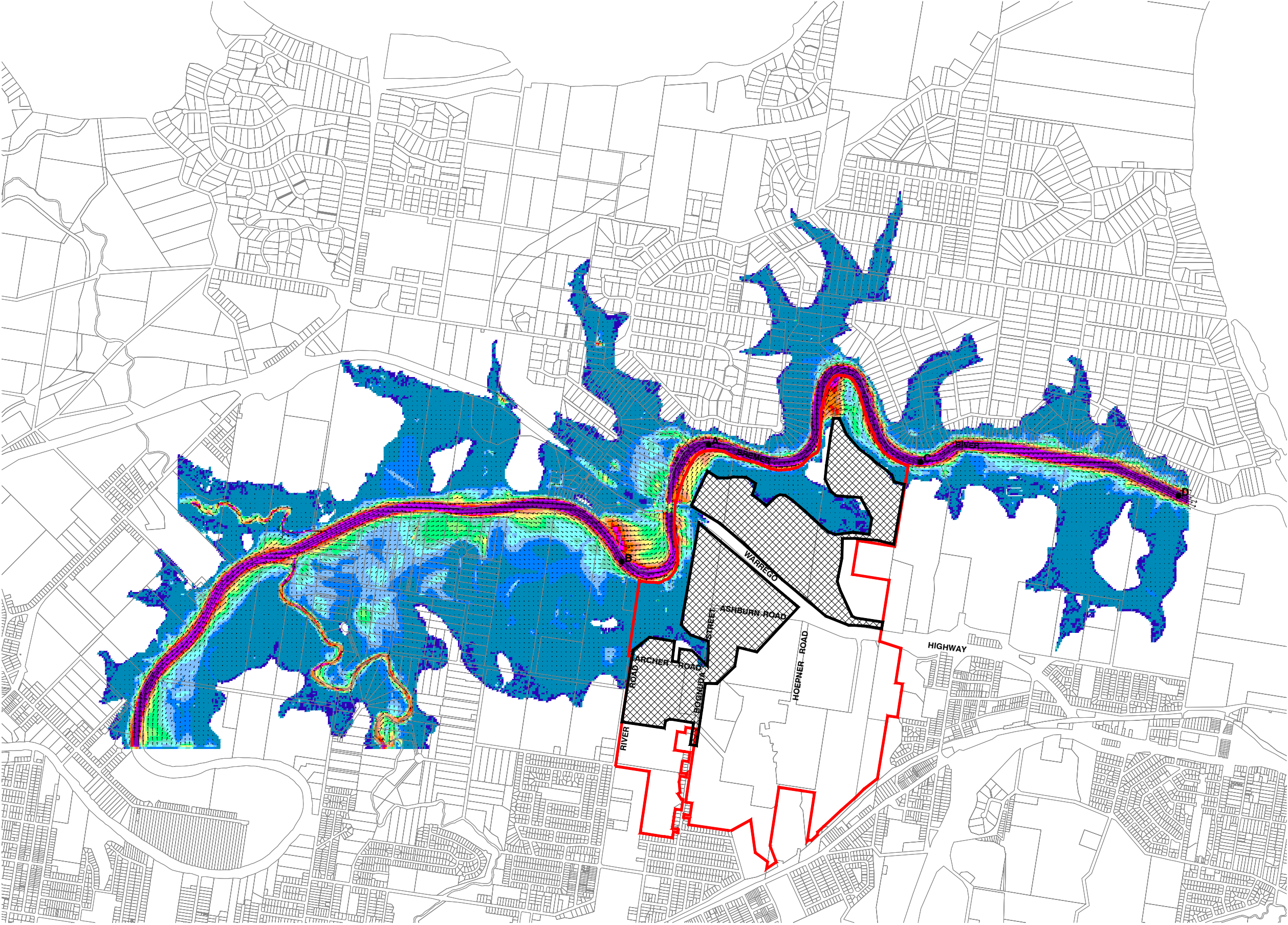
**FIGURE C.3.3**

**MASTERPLAN - SPEED - SKM ULTIMATE 20 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:51pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14\_Bris.dwg  
XREF: vref\_Results\_vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

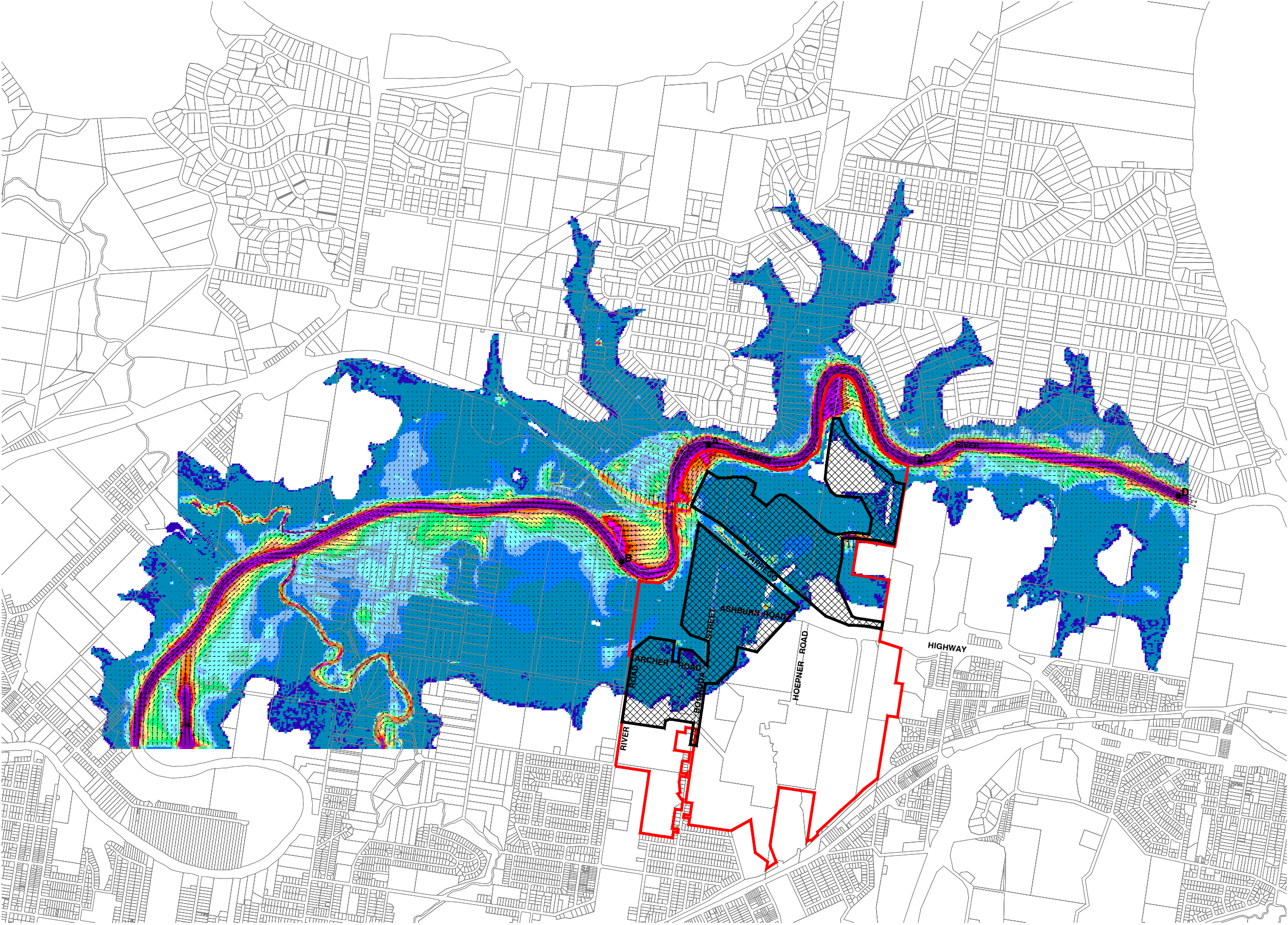
**FIGURE C.3.4**

**MASTERPLAN - SPEED - SKM ULTIMATE 50 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:52pm






















**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

**SPEED (m/s)**

-  Above 2.00
-  1.80 to 2.00
-  1.60 to 1.80
-  1.40 to 1.60
-  1.20 to 1.40
-  1.00 to 1.20
-  0.90 to 1.00
-  0.80 to 0.90
-  0.70 to 0.80
-  0.60 to 0.70
-  0.50 to 0.60
-  0.40 to 0.50
-  0.30 to 0.40
-  0.20 to 0.30
-  0.01 to 0.20
-  Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref\_Results\_vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

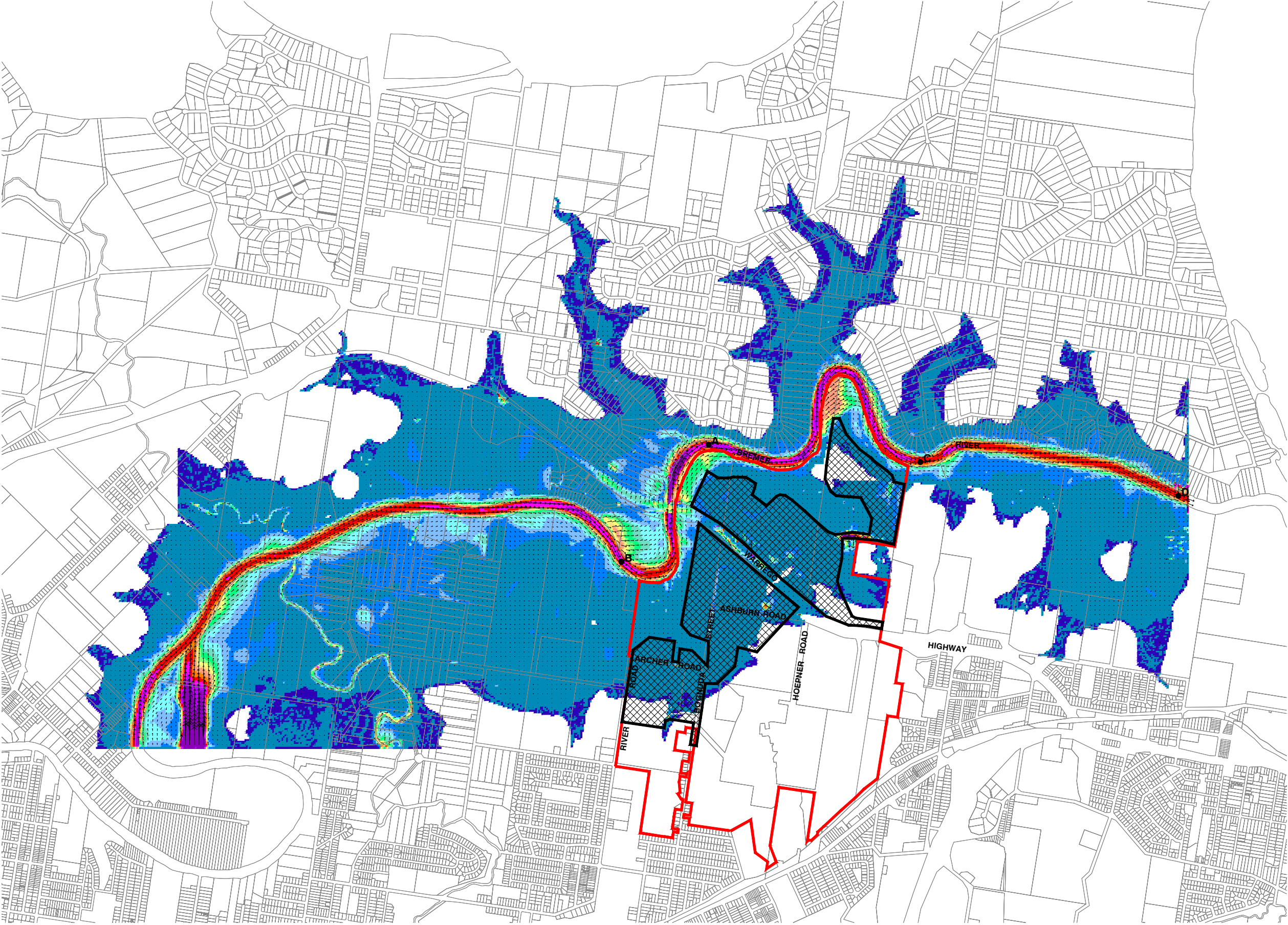
**FIGURE C.3.5**

**MASTERPLAN - SPEED - SKM ULTIMATE 100 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:51pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

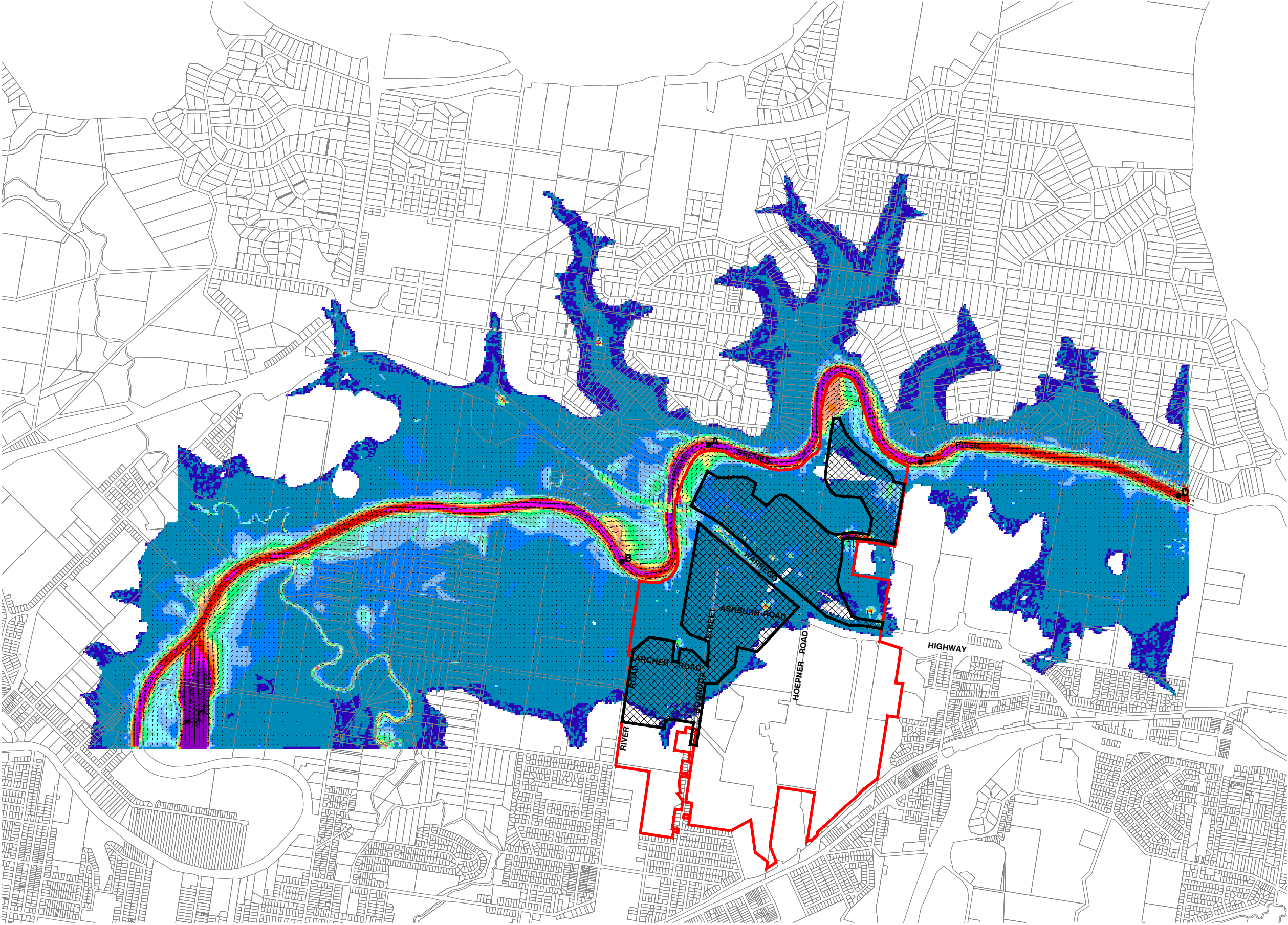
**FIGURE C.3.6**

**MASTERPLAN - SPEED - SKM ULTIMATE 200 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:52pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR; MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE C.3.7**

**MASTERPLAN - SPEED - SKM ULTIMATE 500 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:53pm



## **Appendix C.4**

### **Brisbane River Flood SOBEK 2D Masterplan Ultimate**

#### **Case Results – Hazard (Safety Product)**






**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

 High  
 Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results\_vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

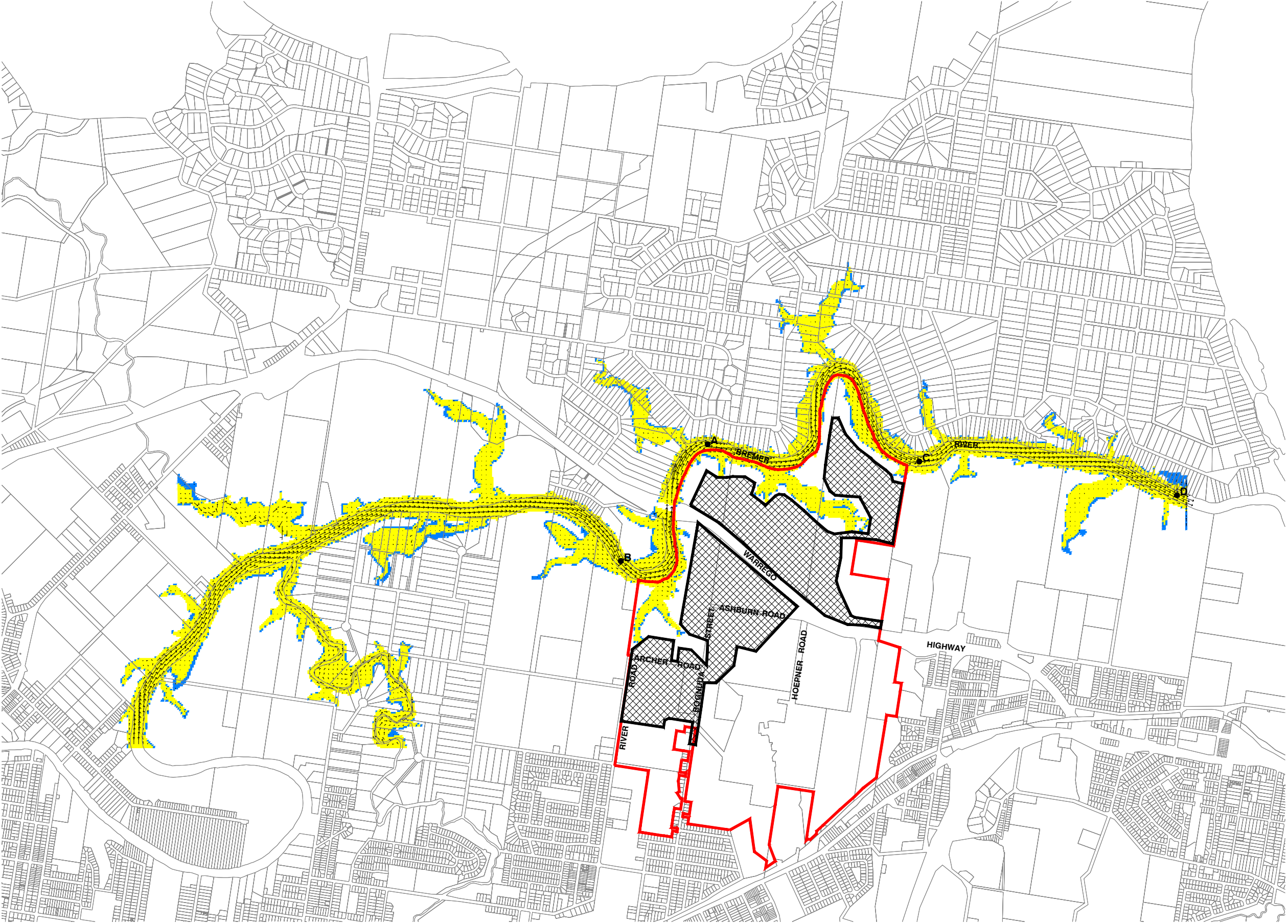
**FIGURE C.4.1**

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 5 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:52pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

 High  
 Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Insulch; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

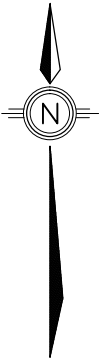
**FIGURE C.4.2**

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 10 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:53pm






**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

 High  
 Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Insulch; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

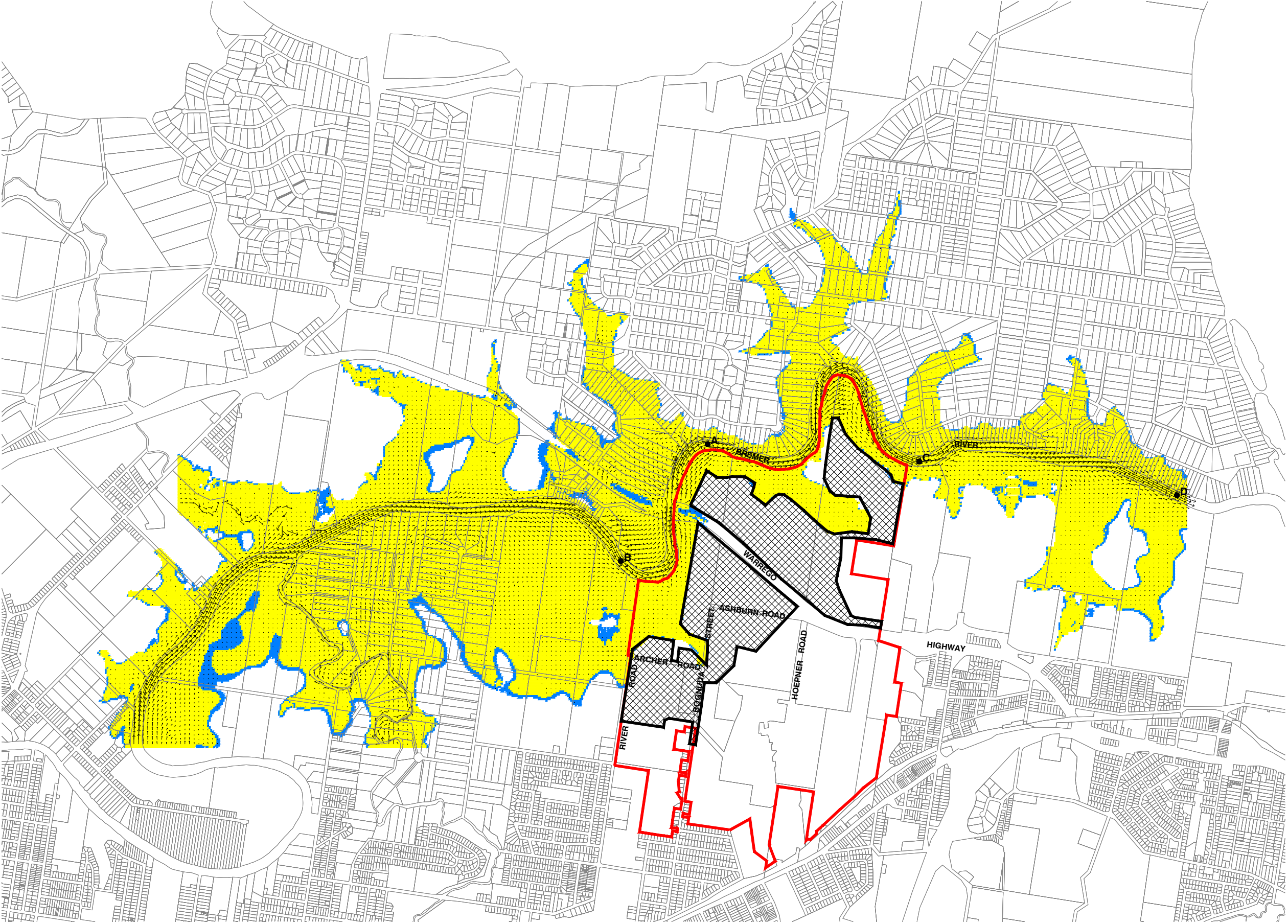
**FIGURE C.4.3**

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 20 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:53pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

High  
Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14\_Bris.dwg  
XREF: vref\_Results\_vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

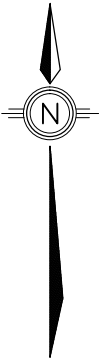
**FIGURE C.4.4**

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 50 YEAR EVENT (Bris\_D14)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:54pm






**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

**HAZARD (vxd Product)**

-  High
-  Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

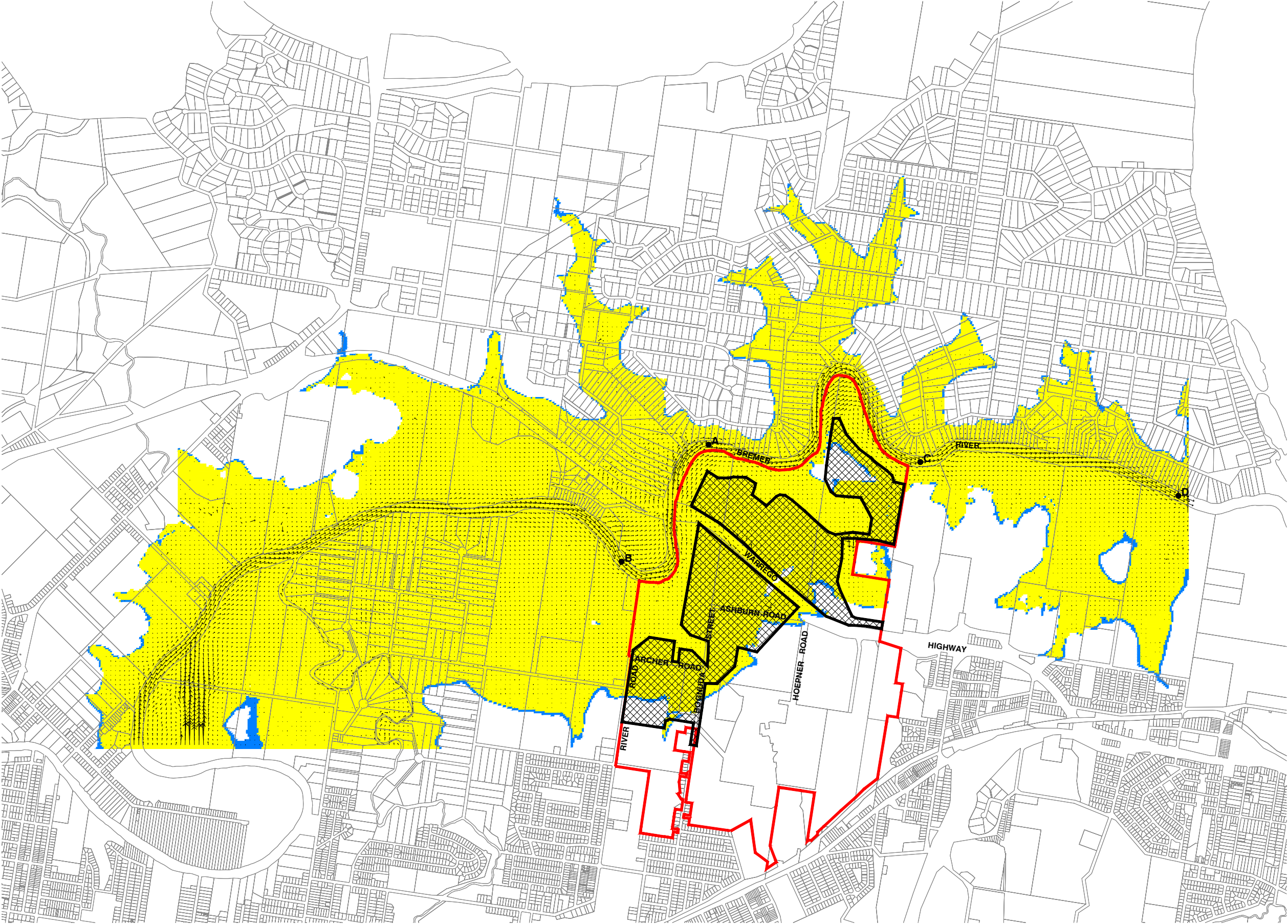
**FIGURE C.4.5**

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 100 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:35pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**VELOCITIES**

1m/s

**HAZARD (vxd Product)**

- High
- Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

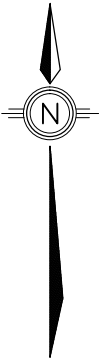
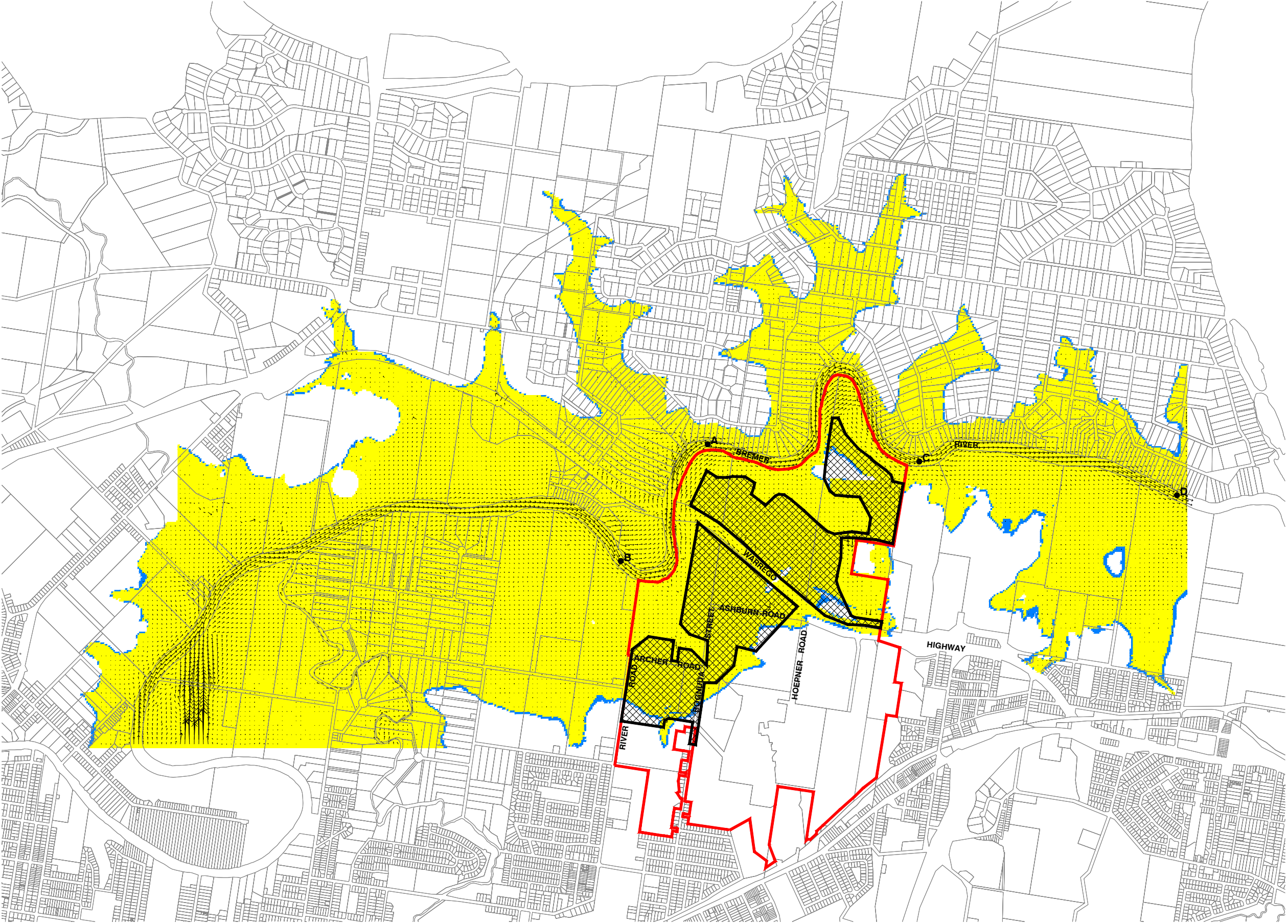
**FIGURE C.4.6**

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 200 YEAR EVENT (Bris\_D14a)**




Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:35pm






**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**VELOCITIES**

 1m/s

**HAZARD (vxd Product)**

-  High
-  Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris.dwg  
XREF's: vref\_Results; vref\_Citiswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE C.4.7**

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 500 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:36pm

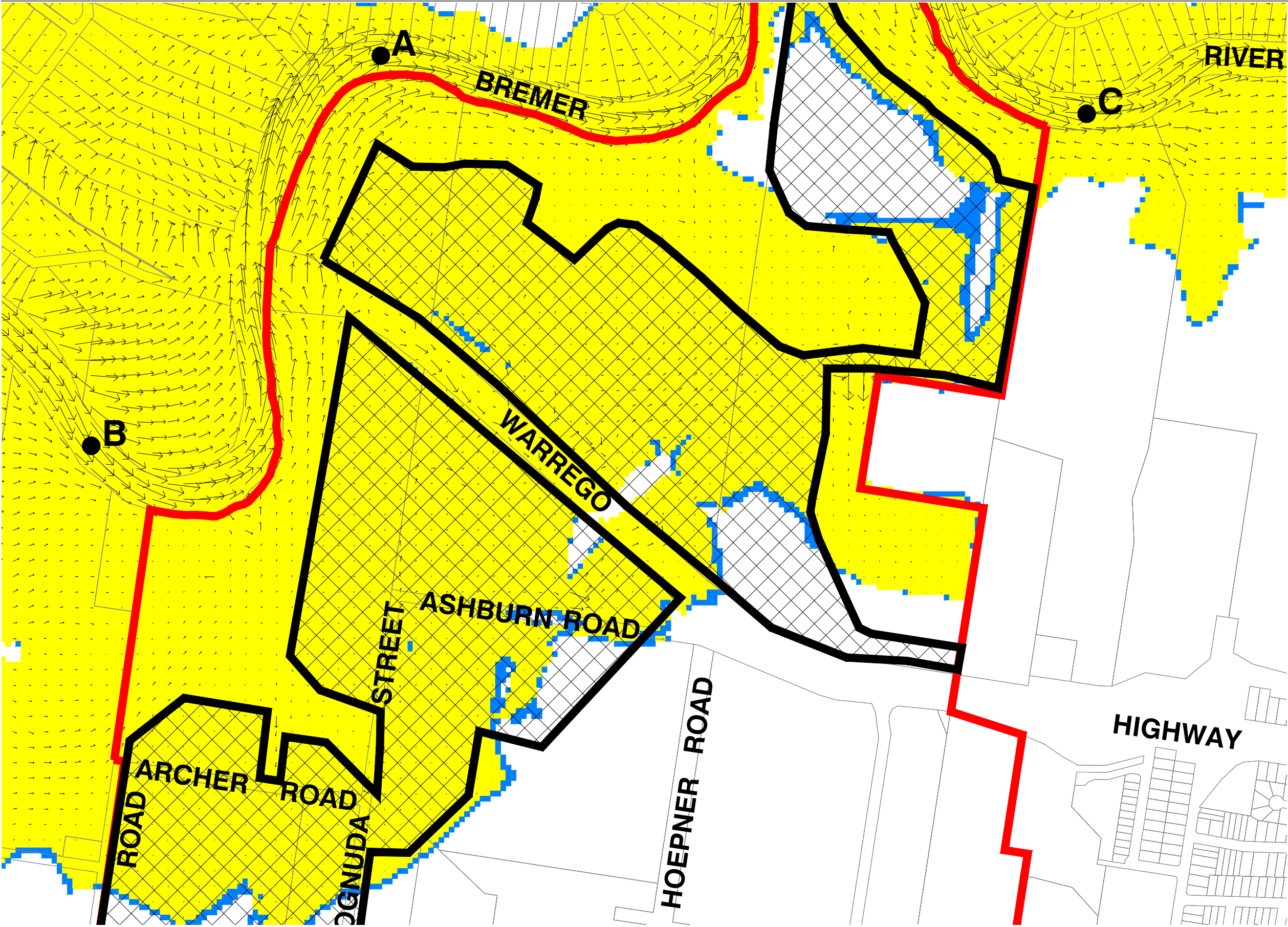


## **Appendix C.5**




### **Brisbane River Flood SOBEK 2D Masterplan Ultimate**

### **Case Results – Site Specific Hazard (Safety Product)**





**LEGEND**

-  Site Boundary
-  Reporting Points
-  MasterPlan Fill  
Boundary

**VELOCITIES**

→ 1m/s

**HAZARD (vxd Product)**

 High  
 Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris\_Site.dwg  
XREF's: vref\_Results: vr-inswch DGNR MGA

75 0 75 150 225 300 375m  
1:7500

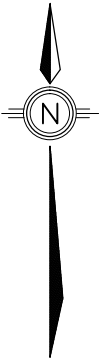
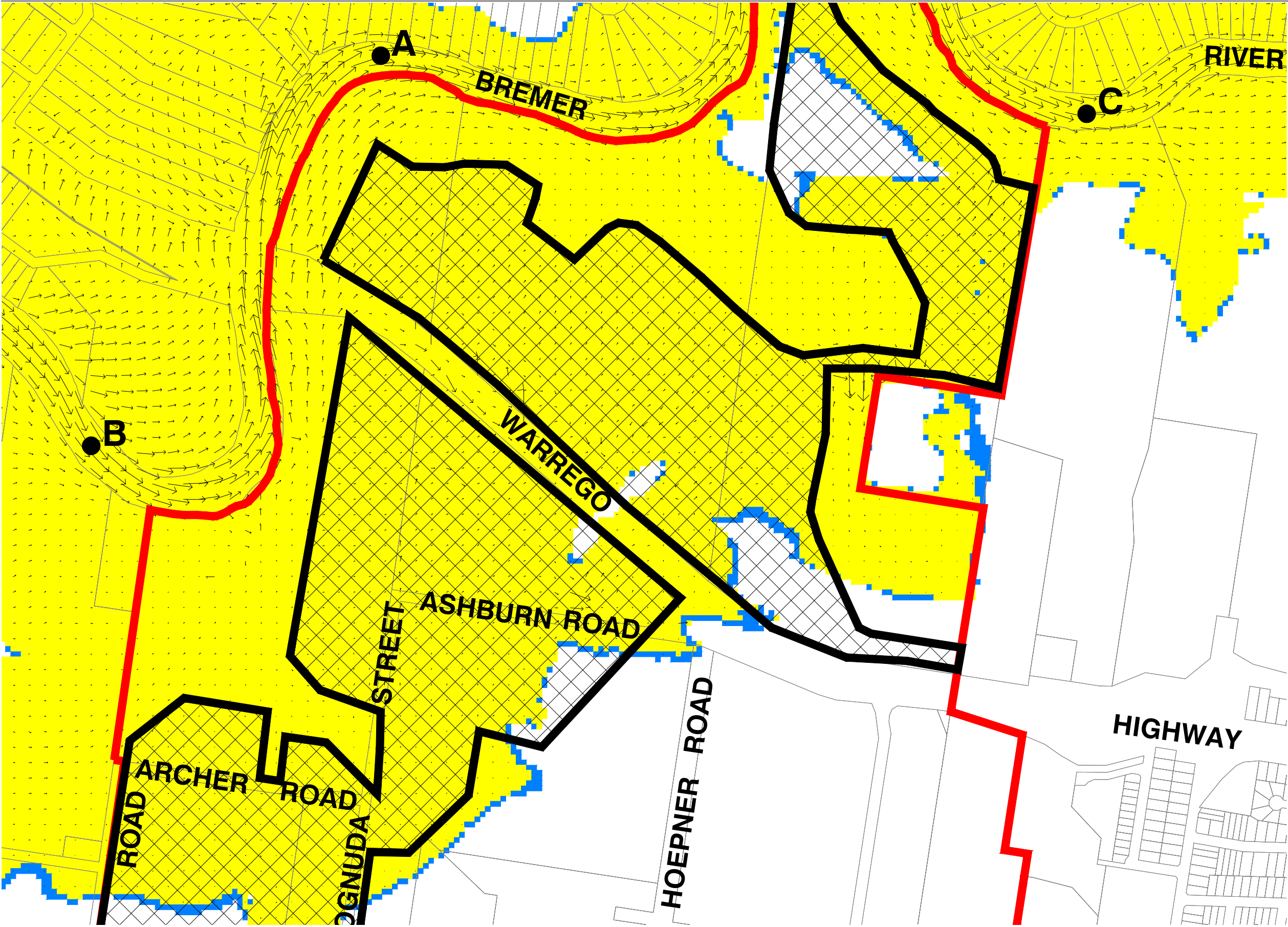
Scale 1:7500 (A3)  
**FIGURE C.5.1**

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 100 YEAR EVENT (Bris\_D14a)**




Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:58pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  MasterPlan Fill Boundary

**VELOCITIES**

→ 1m/s

**HAZARD (vxd Product)**

 High  
 Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14a\_Bris\_Site.dwg  
XREF's: vref-Results: vr-inswch DFIGR MGA

75 0 75 150 225 300 375m 1:7500

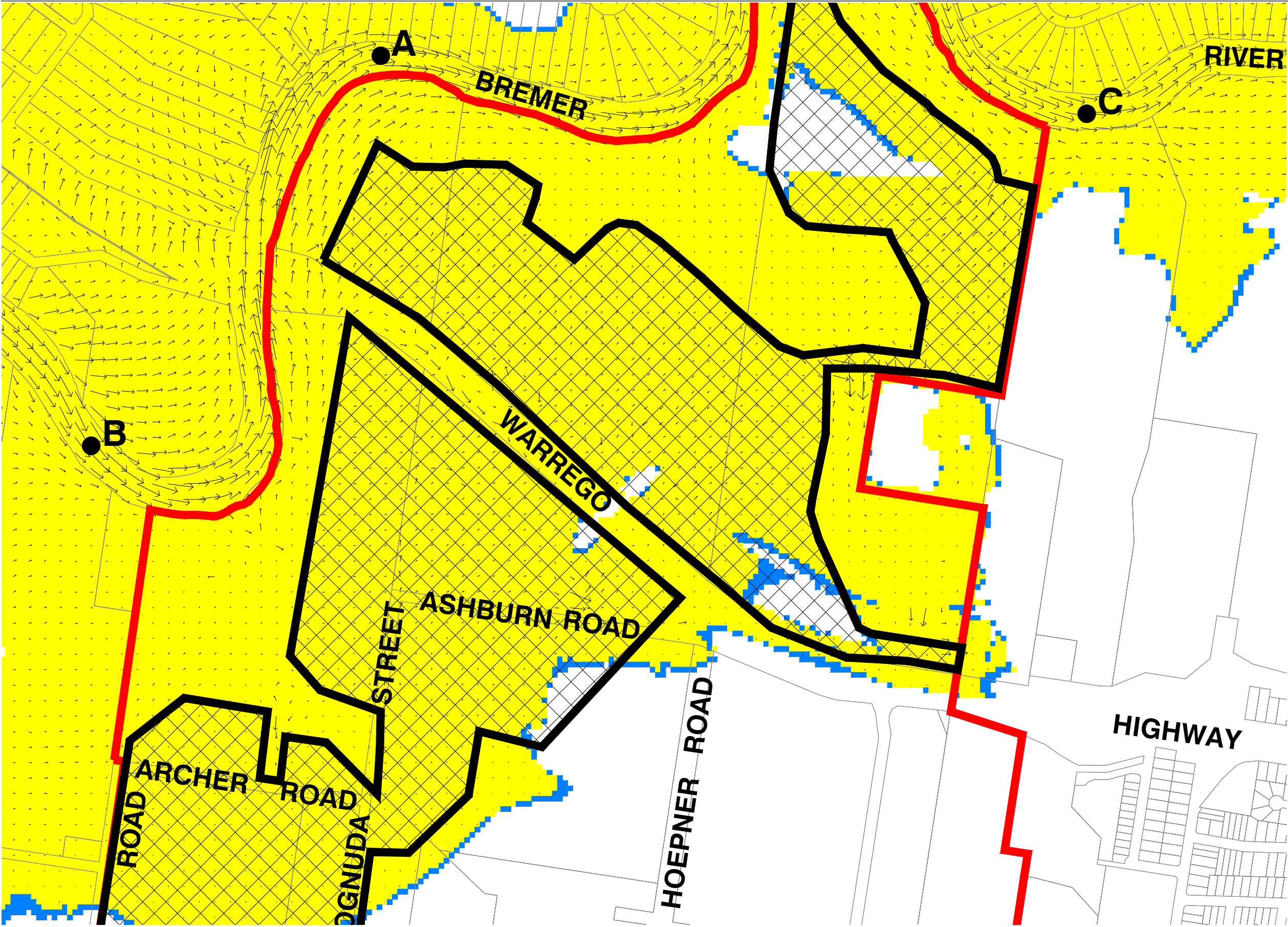
Scale 1:7500 (A3)  
**FIGURE C.5.2**

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 200 YEAR EVENT (Bris\_D14a)**




Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:59pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  MasterPlan Fill Boundary

**VELOCITIES**

→ 1m/s

**HAZARD (vxd Product)**

 High  
 Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris\_Site.dwg  
XREF's: vref-Results: vr-inswich DGNR MGA

**MASTERPLAN - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 500 YEAR EVENT (Bris\_D14a)**

Scale 1:7500 (A3)  
**FIGURE C.5.3**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:00pm

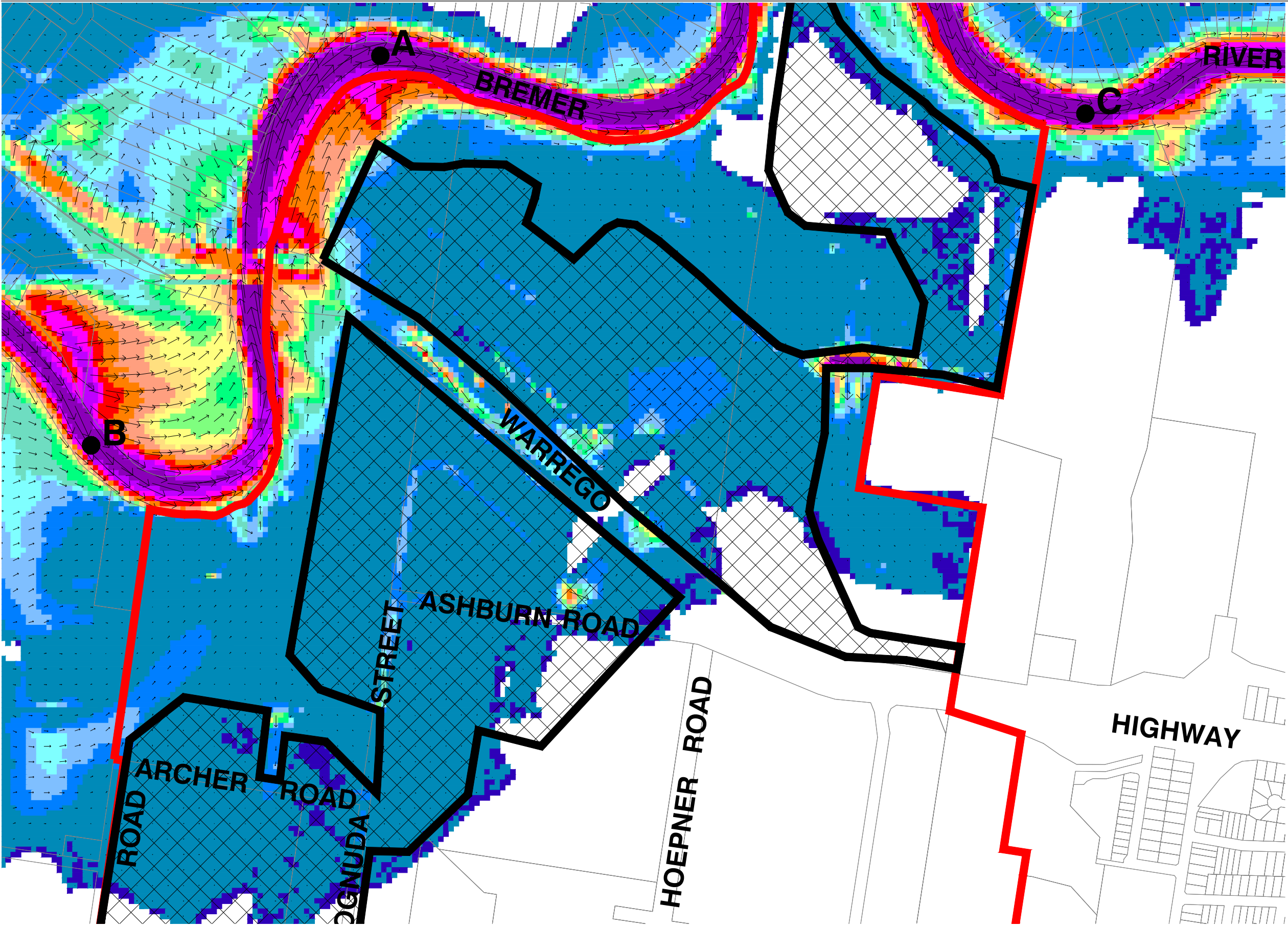


## **Appendix C.6**

### **Brisbane River Flood SOBEK 2D Masterplan Ultimate**

#### **Case Results – Site Specific Speed**





**LEGEND**

- Site Boundary
- Reporting Points
- MasterPlan Fill Boundary

**VELOCITIES**

→ 1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\APP C.D\Figure\_R3v5\_D14a\_Bris\_Site.dwg  
XREF's: vref-Results: vr-inswch DfDR MGA

75 0 75 150 225 300 375m 1:7500

Scale 1:7500 (A3)

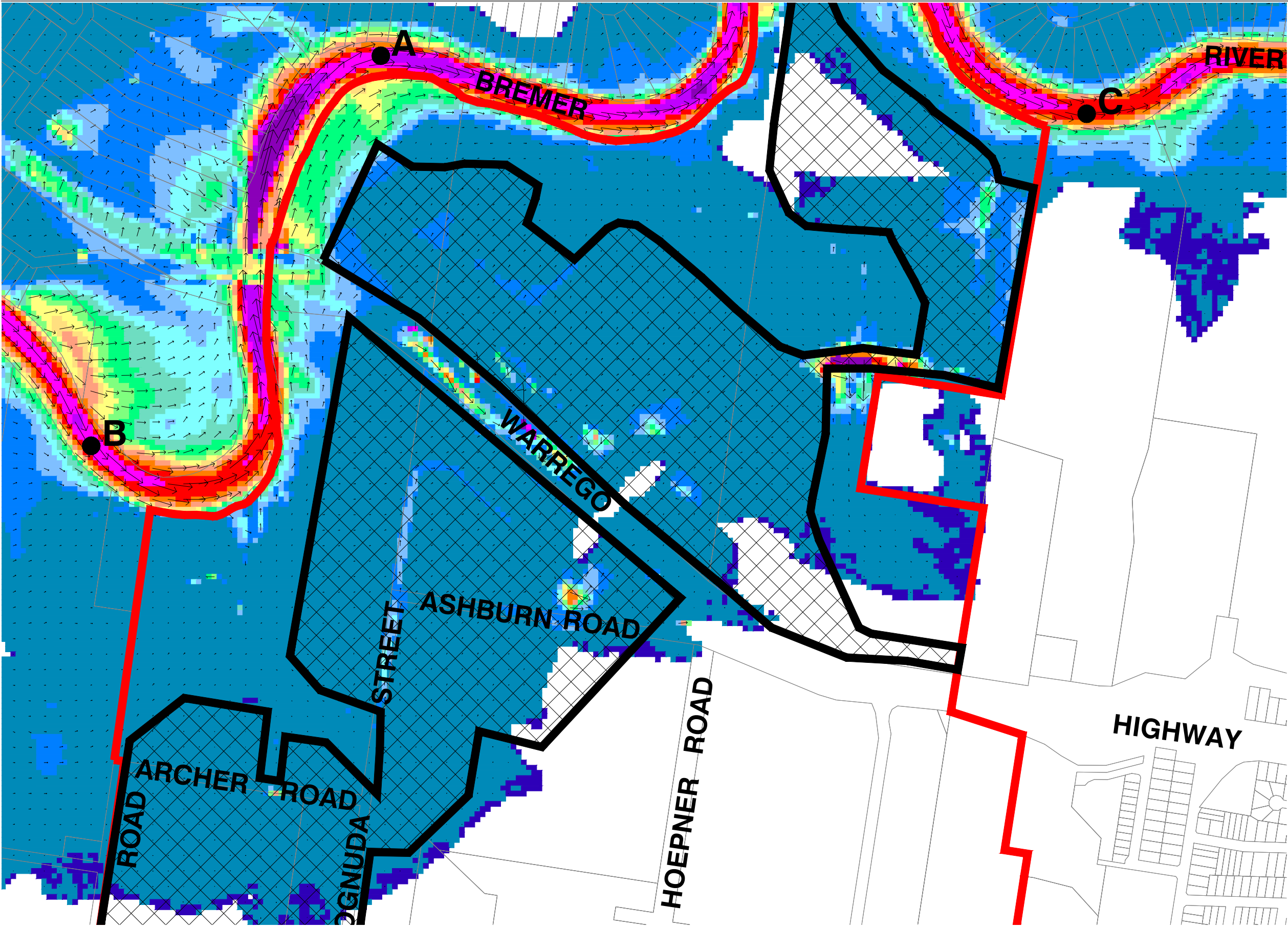
**FIGURE C.6.1**

**MASTERPLAN - SPEED - SKM ULTIMATE 100 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:00pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  MasterPlan Fill Boundary

**VELOCITIES**

→ 1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14a\_Bris\_Site.dwg  
XREF's: vref-Results: vr-inswch DFIGR MGA

75 0 75 150 225 300 375m 1:7500

Scale 1:7500 (A3)

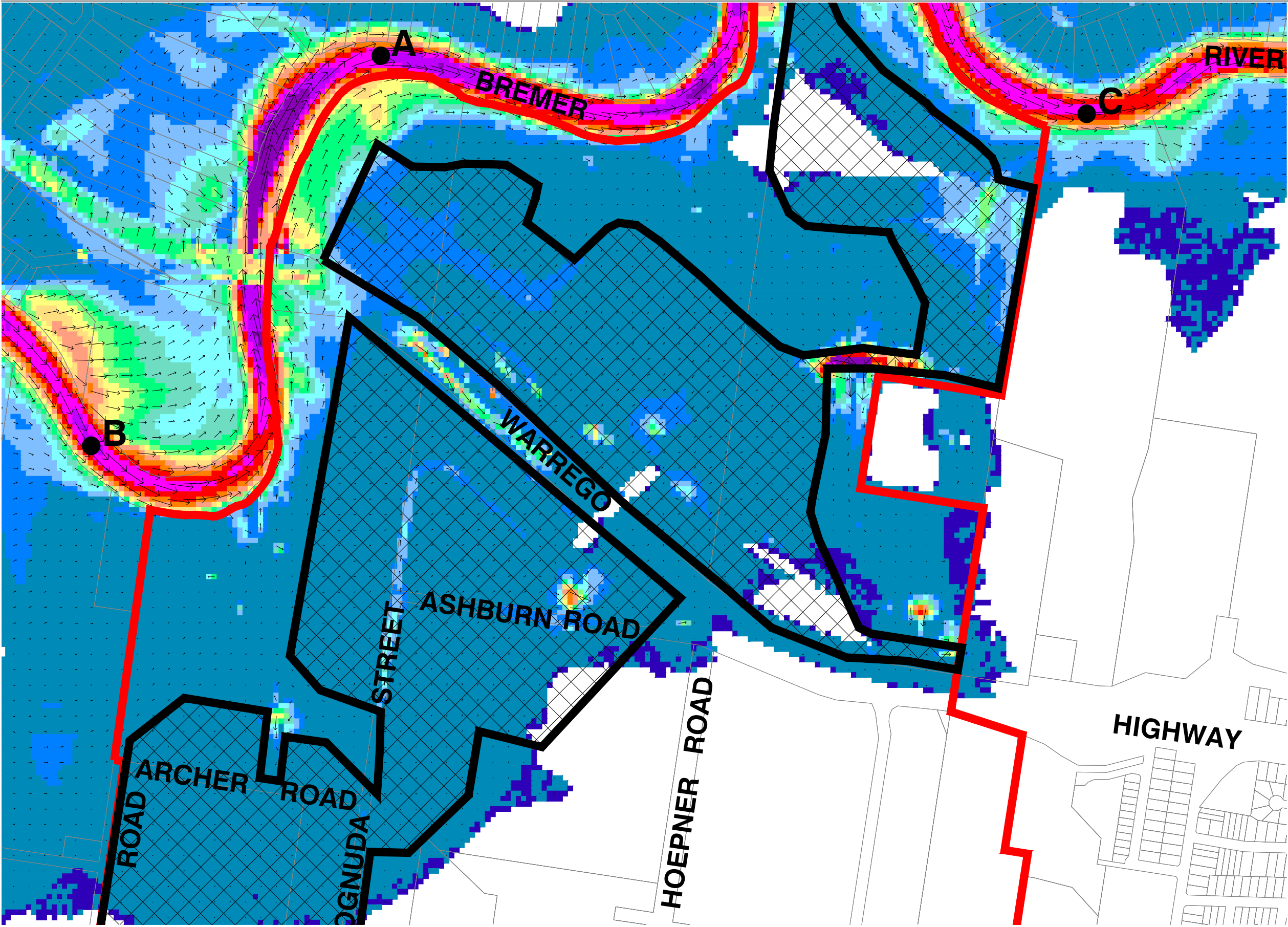
**FIGURE C.6.2**

**MASTERPLAN - SPEED - SKM ULTIMATE 200 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:01pm





**LEGEND**

— Site Boundary

● A Reporting Points

MasterPlan Fill Boundary

**VELOCITIES**

→ 1m/s

**SPEED (m/s)**

Above 2.00

1.80 to 2.00

1.60 to 1.80

1.40 to 1.60

1.20 to 1.40

1.00 to 1.20

0.90 to 1.00

0.80 to 0.90

0.70 to 0.80

0.60 to 0.70

0.50 to 0.60

0.40 to 0.50

0.30 to 0.40

0.20 to 0.30

0.01 to 0.20

Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14a\_Bris\_Site.dwg  
XREF's: vref-Results: vr-inswch DFIGR MGA

75 0 75 150 225 300 375m 1:7500

Scale 1:7500 (A3)

**FIGURE C.6.3**

**MASTERPLAN - SPEED - SKM ULTIMATE 500 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:01pm

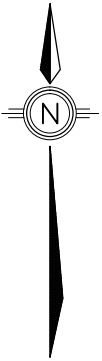
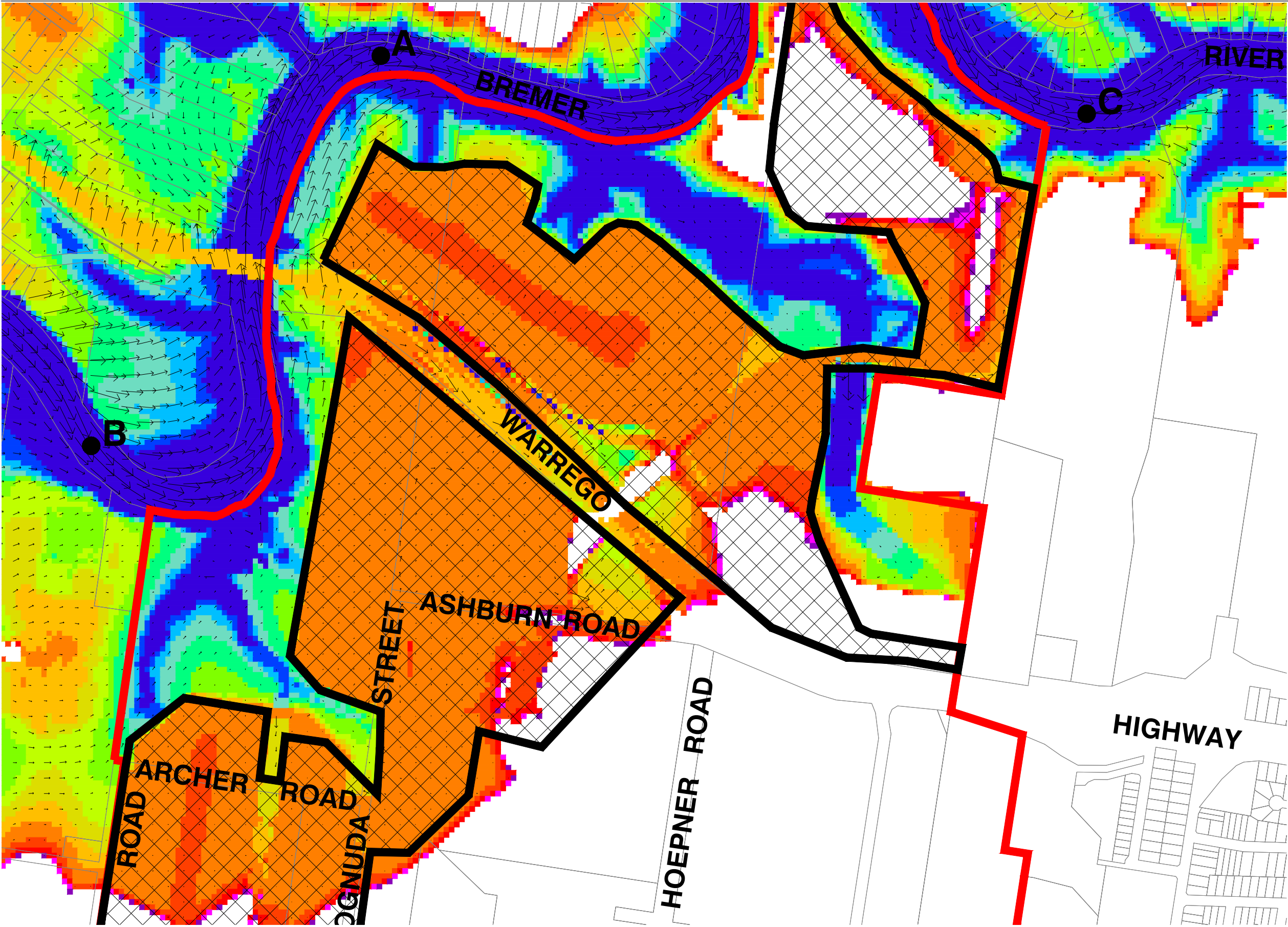


## **Appendix C.7**

### **Brisbane River Flood SOBEK 2D Masterplan Ultimate**

#### **Case Results – Site Specific Depth**





**LEGEND**

-  Site Boundary
-  Reporting Points
-  MasterPlan Fill Boundary

**VELOCITIES**

→ 1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14a\_Bris\_Site.dwg  
XREF's: vref-Results: vr-inswch DFIGR MGA

75 0 75 150 225 300 375m 1:7500

Scale 1:7500 (A3)

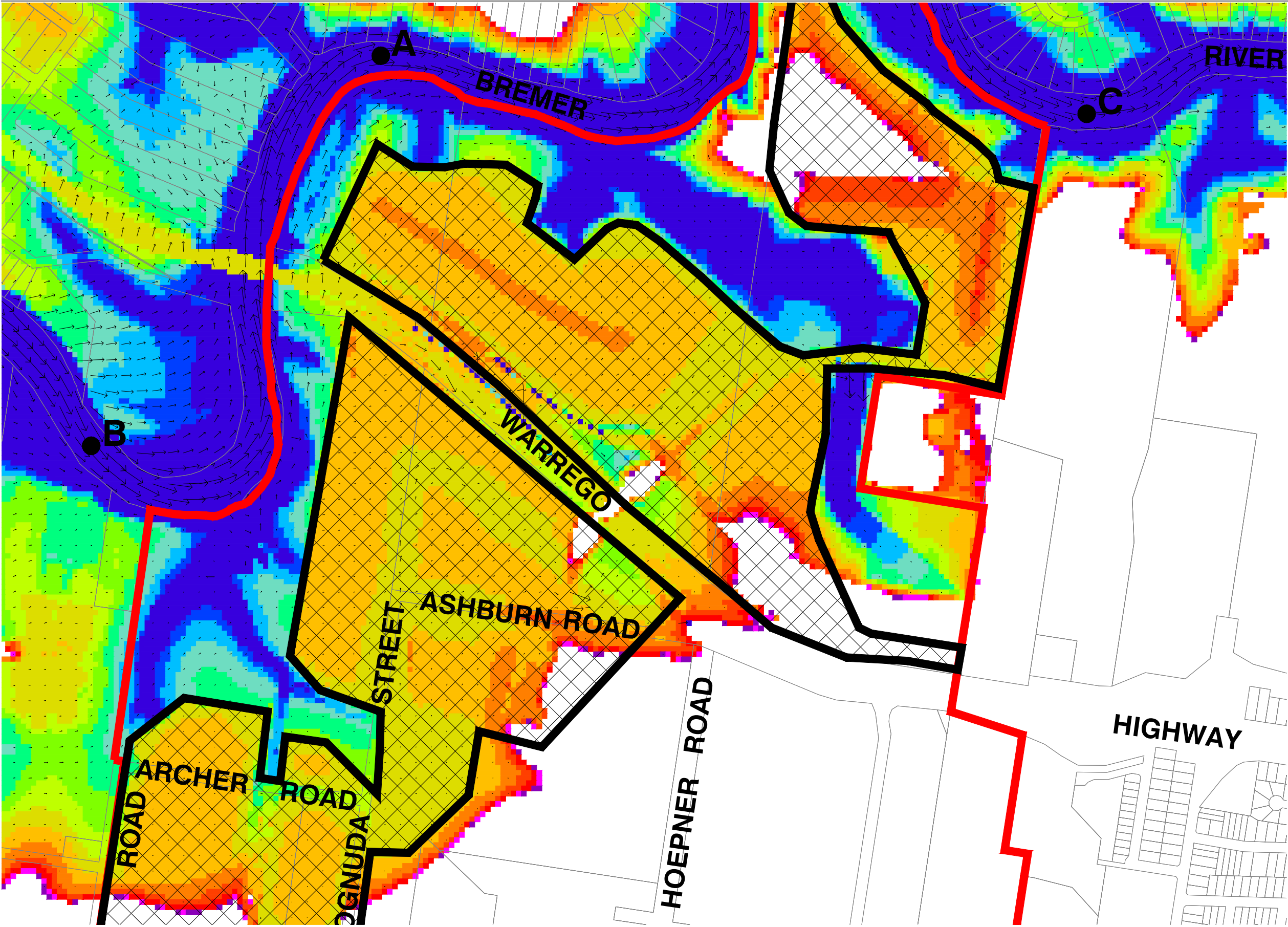
**FIGURE C.7.1**

**MASTERPLAN - DEPTH - SKM ULTIMATE 100 YEAR EVENT (Bris\_D14a)**




Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:02pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  MasterPlan Fill Boundary

**VELOCITIES**

→ 1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14a\_Bris\_Site.dwg  
XREF's: vref-Results: vr-inswch DFOR MGA

75 0 75 150 225 300 375m  
1:7500

Scale 1:7500 (A3)

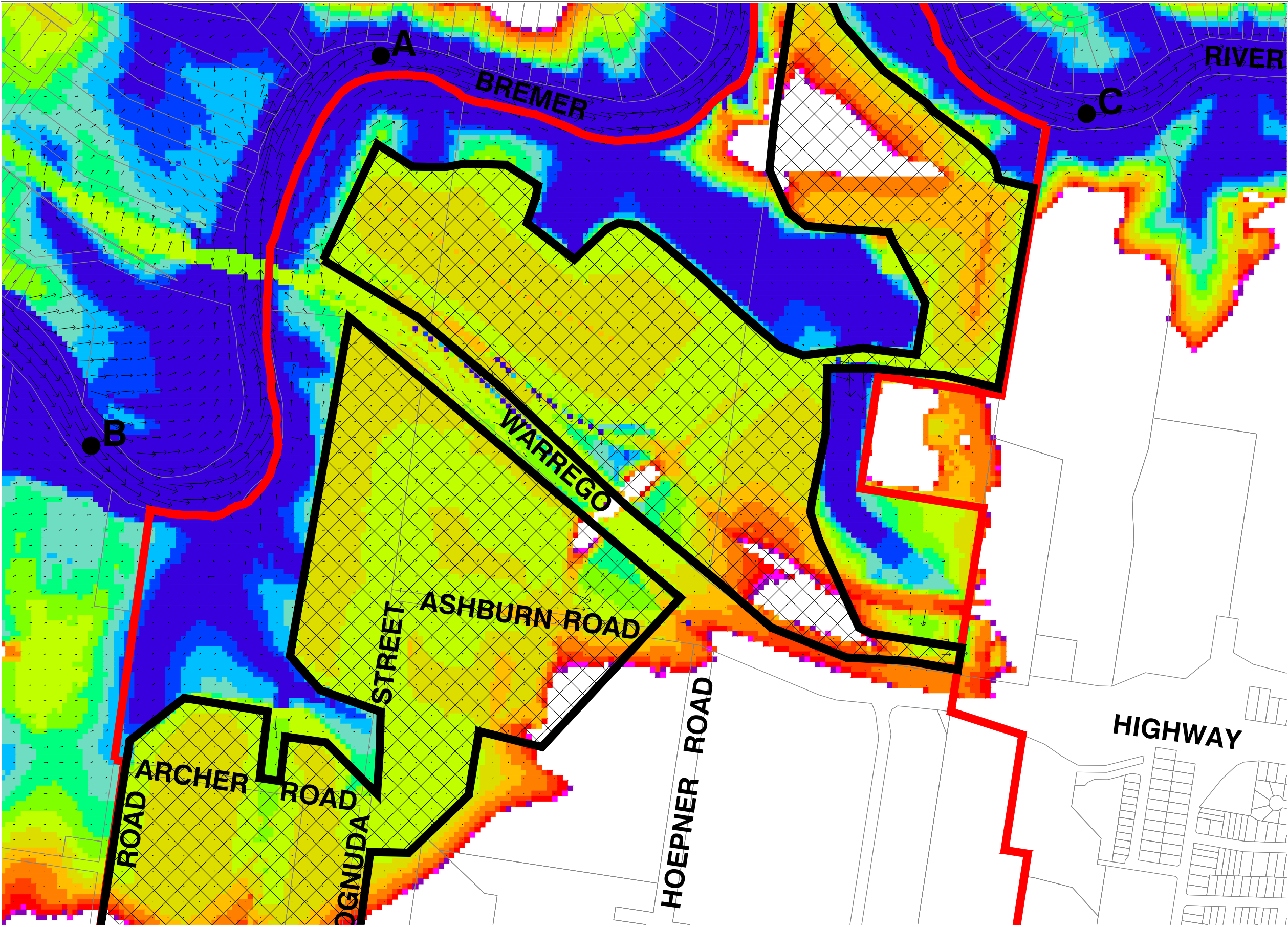
**FIGURE C.7.2**

**MASTERPLAN - DEPTH - SKM ULTIMATE 200 YEAR EVENT (Bris\_D14a)**



Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:03pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  MasterPlan Fill Boundary

**VELOCITIES**

→ 1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\VR3v5\_Masterplan\_Flooding\Appendices\App C.D\Figure\_R3v5\_D14a\_Bris\_Site.dwg  
XREF's: vref-Results: vr-inswch DFIGR MGA

75 0 75 150 225 300 375m 1:7500

Scale 1:7500 (A3)

**FIGURE C.7.3**

**MASTERPLAN - DEPTH - SKM ULTIMATE 500 YEAR EVENT (Bris\_D14a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:03pm






## **Appendix D.1**

### **Brisbane River Flood SOBEK 2D Impact Plots – Masterplan Ultimate Case vs Pre-Developed Base Case**





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**IMPACTS (mm)**

-  Above 200
-  100 to 200
-  50 to 100
-  30 to 50
-  20 to 30
-  10 to 20
-  -20 to -10
-  -30 to -20
-  -40 to -30
-  -50 to -40
-  Below -50

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref-Results: vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

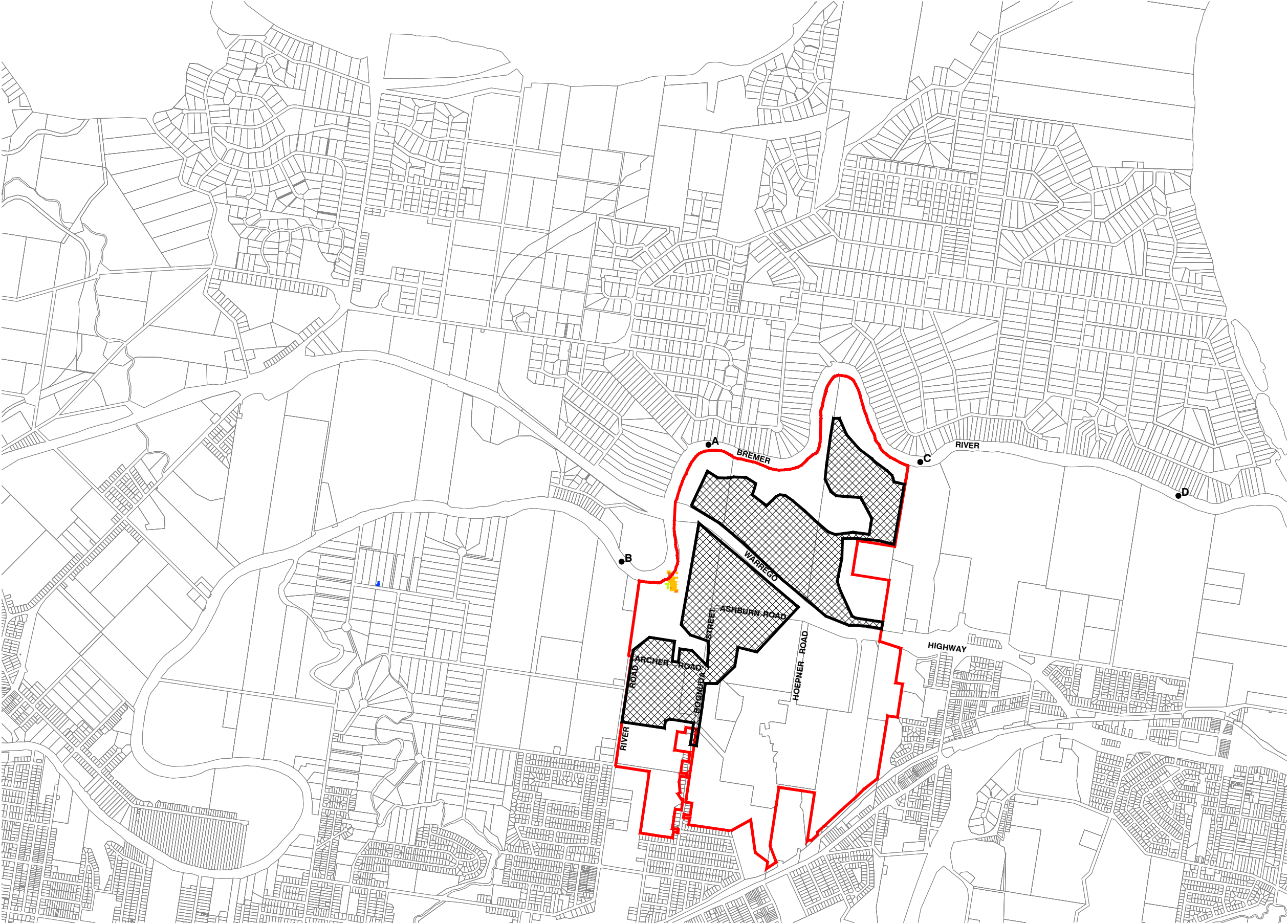
**FIGURE D.1.1**

**MASTERPLAN - IMPACTS - SKM ULTIMATE 5 YEAR EVENT (Bris\_D14 vs Bris\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:54pm



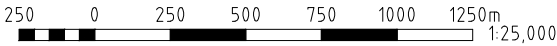


**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**IMPACTS (mm)**

-  Above 200
-  100 to 200
-  50 to 100
-  30 to 50
-  20 to 30
-  10 to 20
-  -20 to -10
-  -30 to -20
-  -40 to -30
-  -50 to -40
-  Below -50



Scale 1:25000 (A3)

**FIGURE D.1.2**

**MASTERPLAN - IMPACTS - SKM ULTIMATE 10 YEAR EVENT (Bris\_D14 vs Bris\_E08)**

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.  
This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0      Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_citiswich; DGNR; MGA

Project No.:      LJ8714

PRINT DATE: 11 May, 2012 - 6:55pm





**LEGEND**

- Site Boundary
- Reporting Points
- Masterplan Fill Boundary

**IMPACTS (mm)**

- Above 200
- 100 to 200
- 50 to 100
- 30 to 50
- 20 to 30
- 10 to 20
- 20 to -10
- 30 to -20
- 40 to -30
- 50 to -40
- Below -50

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE D.1.3**

**MASTERPLAN - IMPACTS - SKM ULTIMATE 20 YEAR EVENT (Bris\_D14 vs Bris\_E08)**

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App C,D\Figure\_R3v5\_D14\_Bris.dwg  
XREF's: vref\_Results; vref\_Insulch; DGNR MGA

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 6:55pm



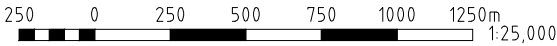


**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**IMPACTS (mm)**

-  Above 200
-  100 to 200
-  50 to 100
-  30 to 50
-  20 to 30
-  10 to 20
-  -20 to -10
-  -30 to -20
-  -40 to -30
-  -50 to -40
-  Below -50



Scale 1:25000 (A3)



**FIGURE D.1.4**

**MASTERPLAN - IMPACTS - SKM ULTIMATE 50 YEAR EVENT (Bris\_D14 vs Bris\_E08)**





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**IMPACTS (mm)**

-  Above 200
-  100 to 200
-  50 to 100
-  30 to 50
-  20 to 30
-  10 to 20
-  -20 to -10
-  -30 to -20
-  -40 to -30
-  -50 to -40
-  Below -50

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: A1 Date: August 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\VR3v5\_A1\_Masterplan\_Flooding\Appendices\App C,D\Figure\_RFI 13AUG12 R3v5\_D14a\_Bris.dwg  
XREF's: vref-Results; vref-inswich; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE D.1.5**

**MASTERPLAN - IMPACTS - SKM ULTIMATE 100 YEAR EVENT (Bris\_D14a vs Bris\_E08a)**




Project No.: LJ8714

PRINT DATE: 21 August, 2012 - 4:44pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**IMPACTS (mm)**

-  Above 200
-  100 to 200
-  50 to 100
-  30 to 50
-  20 to 30
-  10 to 20
-  -20 to -10
-  -30 to -20
-  -40 to -30
-  -50 to -40
-  Below -50

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: A1 Date: August 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\VR3v5\_A1\_Masterplan\_Flooding\Appendices\App C,D\Figure\_RFI 13AUG12 R3v5\_D14a\_Bris.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE D.1.6**

**MASTERPLAN - IMPACTS - SKM ULTIMATE 200 YEAR EVENT (Bris\_D14a vs Bris\_E08a)**



Project No.: LJ8714

PRINT DATE: 21 August, 2012 - 4:44pm



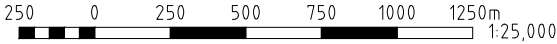


**LEGEND**

-  Site Boundary
-  Reporting Points
-  Masterplan Fill Boundary

**IMPACTS (mm)**

-  Above 200
-  100 to 200
-  50 to 100
-  30 to 50
-  20 to 30
-  10 to 20
-  -20 to -10
-  -30 to -20
-  -40 to -30
-  -50 to -40
-  Below -50



Scale 1:25000 (A3)

**FIGURE D.1.7**

**MASTERPLAN - IMPACTS - SKM ULTIMATE 500 YEAR EVENT (Bris\_D14a vs Bris\_E08a)**

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: A1 Date: August 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\VR3v5\_A1\_Masterplan\_Flooding\Appendices\App C,D\Figure\_RFI 13AUG12 R3v5\_D14a\_Bris.dwg  
XREF: vref-Results\_vr-inswch DGNR MGA

Project No.: LJ8714

PRINT DATE: 21 August, 2012 - 4:45pm



## **Appendix D.2**




### **Brisbane River Flood SOBEK 2D Impact Plots – Existing**

#### **Current Case vs Pre-Developed Base Case**





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Existing Current Fill Boundary

**IMPACTS (mm)**

-  Above 200
-  100 to 200
-  50 to 100
-  30 to 50
-  20 to 30
-  10 to 20
-  -20 to -10
-  -30 to -20
-  -40 to -30
-  -50 to -40
-  Below -50

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\DOCUME~1\KRISZE~1\DECS\LOCALS~1\Temp\AcPublish\_5140\Figure\_R3v4\_E08c\_Bris\_Impacts.dwg  
XPFFc:\vref-Results-vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE D.2.1**

**EXISTING CURRENT - IMPACTS - SKM ULTIMATE 5 YEAR EVENT (Bris\_E08c vs Bris\_E08)**

Project No.: LJ8714

PRINT DATE: 17 April, 2012 - 2:15pm





**LEGEND**

- Site Boundary
- Reporting Points
- Existing Current Fill Boundary

**IMPACTS (mm)**

- Above 200
- 100 to 200
- 50 to 100
- 30 to 50
- 20 to 30
- 10 to 20
- 20 to -10
- 30 to -20
- 40 to -30
- 50 to -40
- Below -50

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\DOCUME~1\KRISZE~1\DECS\LOCALS~1\Temp\AcPublish\_5140\Figure\_R3v4\_E08c\_Bris\_Impacts.dwg  
XPFFc:\vref-Results-vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

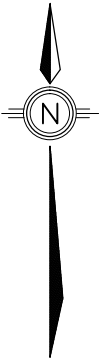
**FIGURE D.2.2**

**EXISTING CURRENT - IMPACTS - SKM ULTIMATE 10 YEAR EVENT (Bris\_E08c vs Bris\_E08)**




Project No.: LJ8714

PRINT DATE: 17 April, 2012 - 2:15pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Existing Current Fill Boundary

**IMPACTS (mm)**

-  Above 200
-  100 to 200
-  50 to 100
-  30 to 50
-  20 to 30
-  10 to 20
-  -20 to -10
-  -30 to -20
-  -40 to -30
-  -50 to -40
-  Below -50

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\DOCUME~1\KRISZE~1\DECS\LOCALS~1\Temp\AcPublish\_5140\Figure\_R3v4\_E08c\_Bris\_Impacts.dwg  
XPFFc:\vref-Results-vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE D.2.3**

**EXISTING CURRENT - IMPACTS - SKM ULTIMATE 20 YEAR EVENT (Bris\_E08c vs Bris\_E08)**




Project No.: LJ8714

PRINT DATE: 17 April, 2012 - 2:16pm





**LEGEND**

-  Site Boundary
-  Reporting Points
-  Existing Current Fill Boundary

**IMPACTS (mm)**

-  Above 200
-  100 to 200
-  50 to 100
-  30 to 50
-  20 to 30
-  10 to 20
-  -20 to -10
-  -30 to -20
-  -40 to -30
-  -50 to -40
-  Below -50

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\DOCUME~1\KRISZE~1\DE\LOCALS~1\Temp\AcPublish\_5140\Figure\_R3v4\_E08c\_Bris\_Impacts.dwg  
XPFF's vref-Results: vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE D.2.4**

**EXISTING CURRENT - IMPACTS - SKM ULTIMATE 50 YEAR EVENT (Bris\_E08c vs Bris\_E08)**

Project No.: LJ8714

PRINT DATE: 17 April, 2012 - 2:16pm

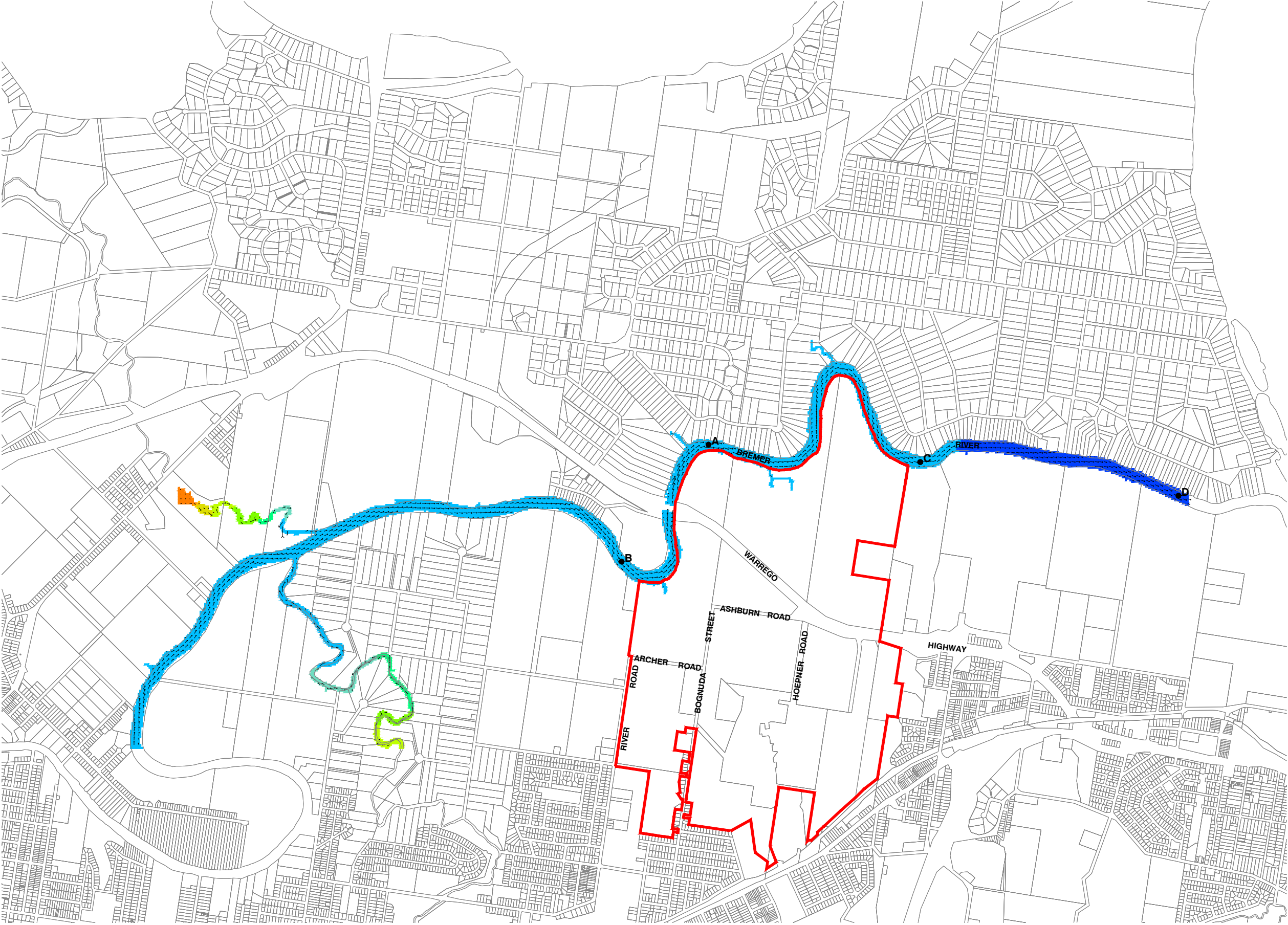


## **Appendix E.1**

### **Bremer River Flood SOBEK 2D Pre-Developed Base**

#### **Case Results – Water Surface Level**





**LEGEND**

- Site Boundary
- Reporting Points

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

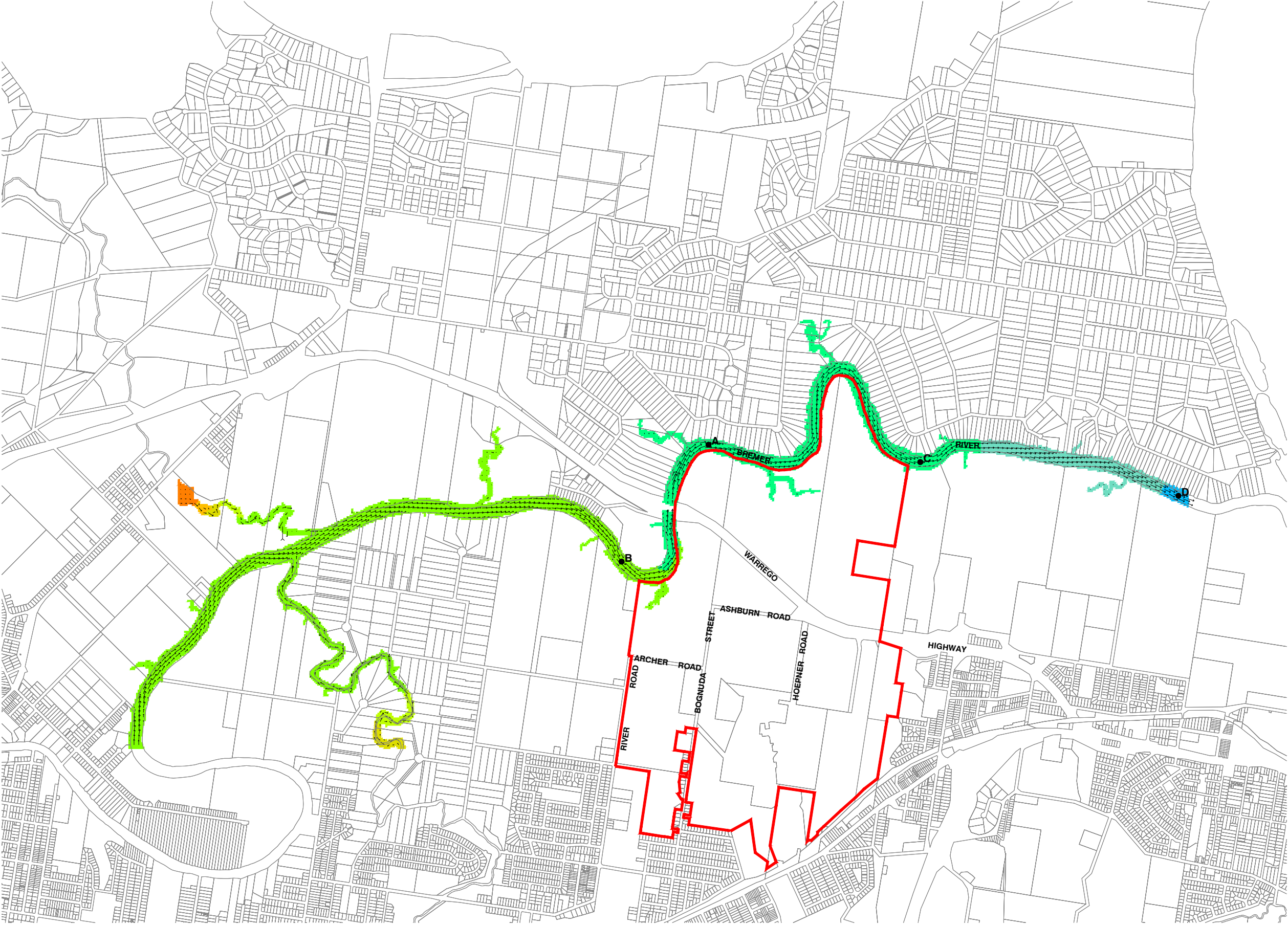
Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswich DGNR MGA

Scale 1:25000 (A3)  
**FIGURE E.1.1**  
**BASE CASE - WATER SURFACE LEVELS - SKM ULTIMATE 2 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714  
PRINT DATE: 11 May, 2012 - 7:18pm





**LEGEND**

- Site Boundary
- A Reporting Points

**VELOCITIES**

→ 1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.1.2**

**BASE CASE - WATER SURFACE LEVELS - SKM ULTIMATE 5 YEAR EVENT (Brem\_E08)**

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswich DGNR MGA

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:19pm





**LEGEND**

- Site Boundary
- Reporting Points

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Insur; vref\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.1.3**

**BASE CASE - WATER SURFACE LEVELS - SKM ULTIMATE 10 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:19pm





**LEGEND**

- Site Boundary
- A Reporting Points

**VELOCITIES**

→ 1m/s

**WATER SURFACE LEVEL (mAHd)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Inschw; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.1.4**

**BASE CASE - WATER SURFACE LEVELS - SKM ULTIMATE 20 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:20pm





**LEGEND**

- Site Boundary
- A Reporting Points

**VELOCITIES**

→ 1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.1.5**

**BASE CASE - WATER SURFACE LEVELS - SKM ULTIMATE 50 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:20pm





**LEGEND**

- Site Boundary
- A Reporting Points

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 21.00
- 20.00 to 21.00
- 19.00 to 20.00
- 18.00 to 19.00
- 17.00 to 18.00
- 16.00 to 17.00
- 15.00 to 16.00
- 14.00 to 15.00
- 13.00 to 14.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- Below 9.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

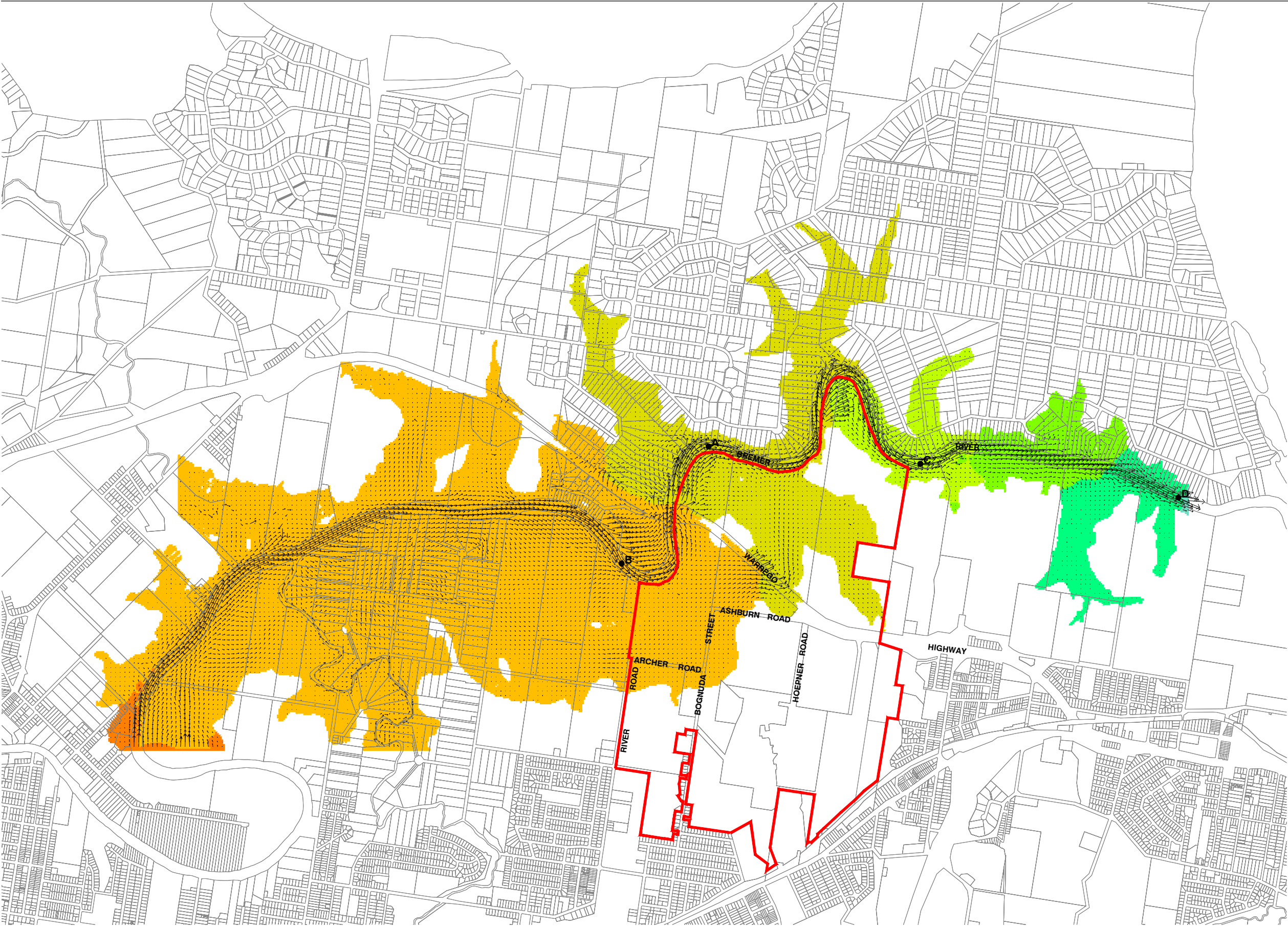
**FIGURE E.1.6**

**BASE CASE - WATER SURFACE LEVELS - SKM ULTIMATE 100 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:18pm





**LEGEND**

- Site Boundary
- Reporting Points

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 21.00
- 20.00 to 21.00
- 19.00 to 20.00
- 18.00 to 19.00
- 17.00 to 18.00
- 16.00 to 17.00
- 15.00 to 16.00
- 14.00 to 15.00
- 13.00 to 14.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- Below 9.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

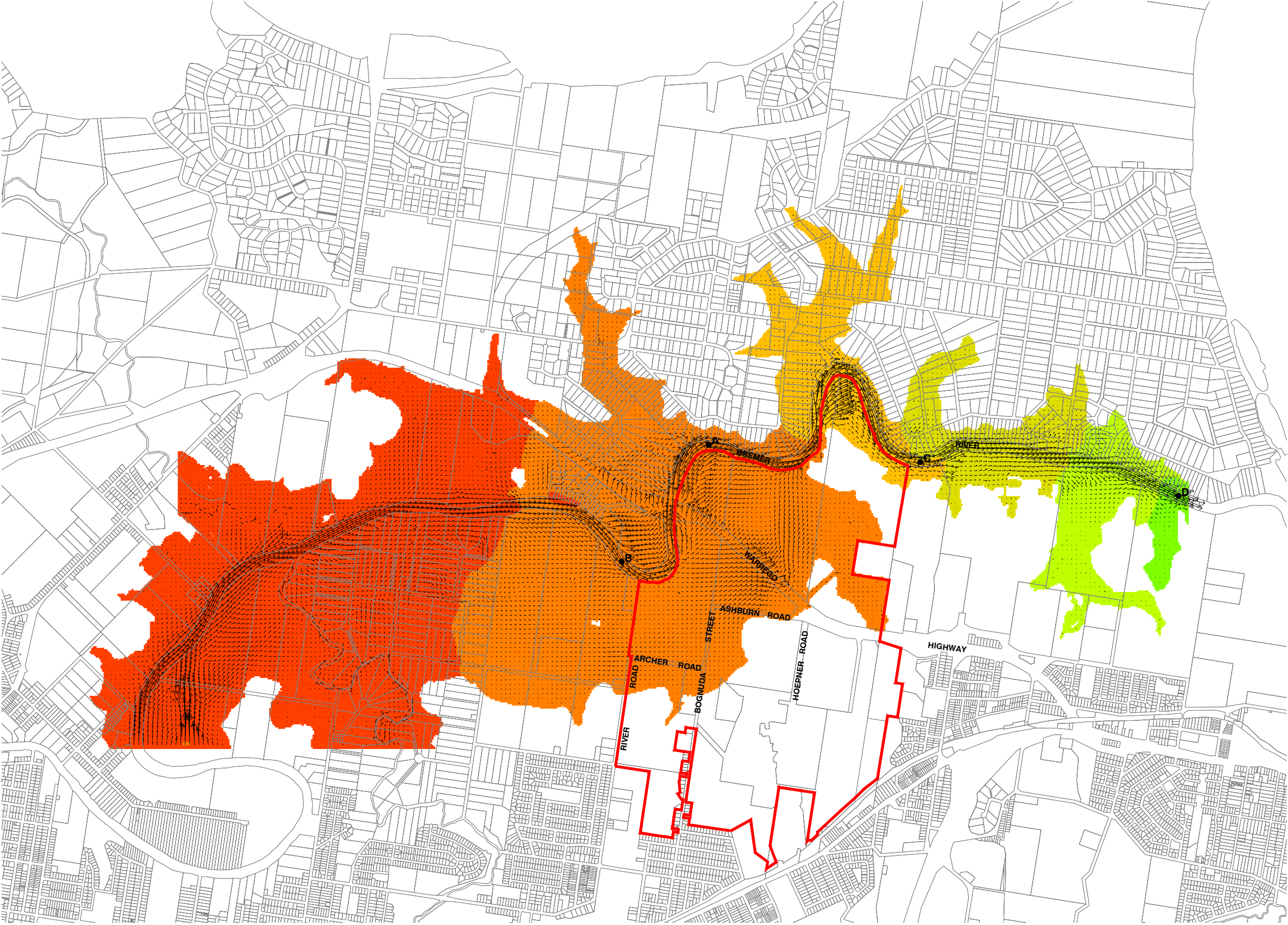
**FIGURE E.1.7**

**BASE CASE - WATER SURFACE LEVELS - SKM ULTIMATE 200 YEAR EVENT (Brem\_E08a)**



Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:18pm



















**LEGEND**

-  Site Boundary
-  Reporting Points

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

-  Above 21.00
-  20.00 to 21.00
-  19.00 to 20.00
-  18.00 to 19.00
-  17.00 to 18.00
-  16.00 to 17.00
-  15.00 to 16.00
-  14.00 to 15.00
-  13.00 to 14.00
-  12.00 to 13.00
-  11.00 to 12.00
-  10.00 to 11.00
-  9.00 to 10.00
-  Below 9.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswich DGNR MGA

Scale 1:25000 (A3)  
**FIGURE E.1.8**  
**BASE CASE - WATER SURFACE LEVELS - SKM ULTIMATE 500 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:19pm

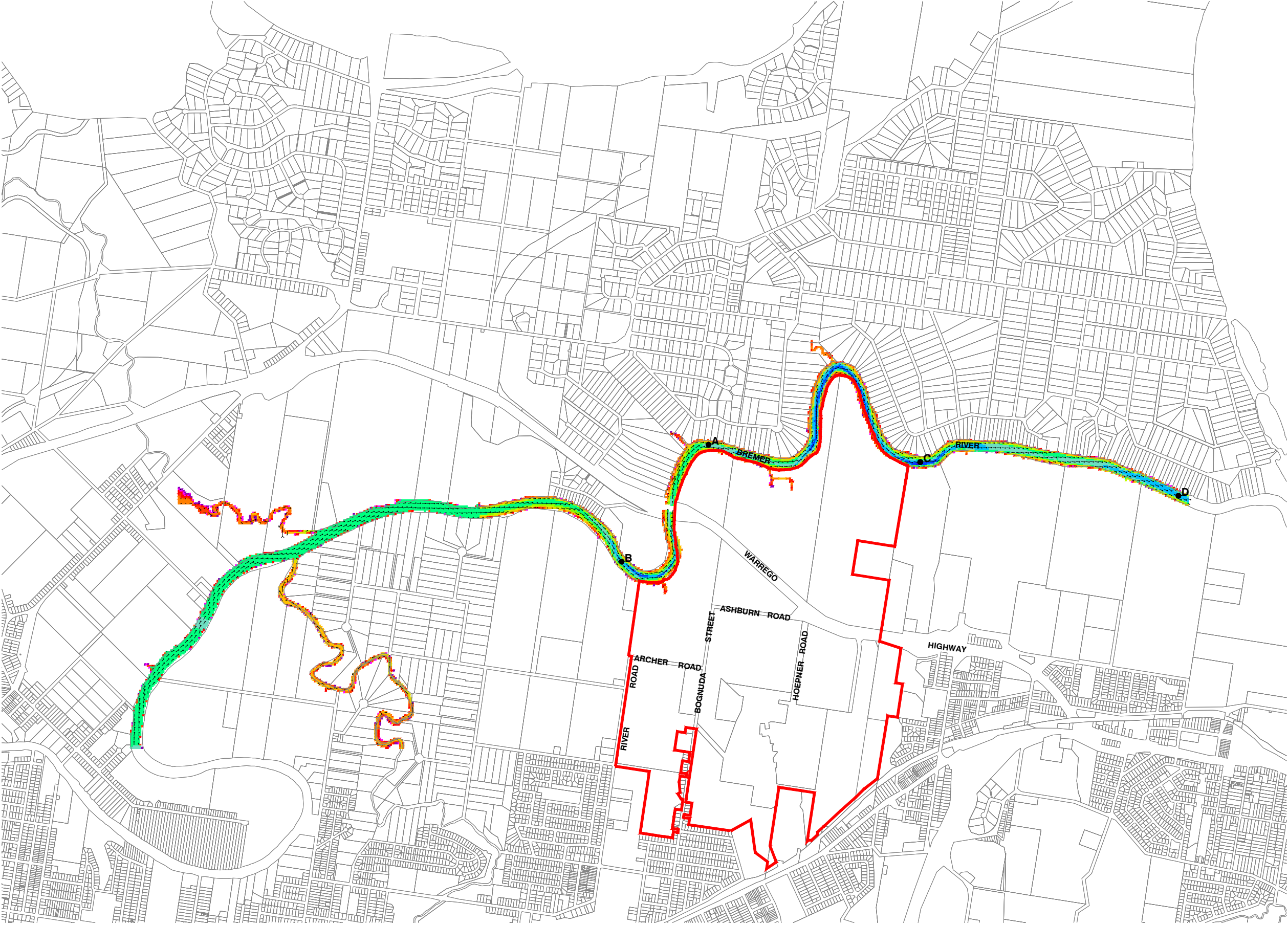


## **Appendix E.2**

### **Bremer River Flood SOBEK 2D Pre-Developed Base**

#### **Case Results – Depth**





© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswch; DGNR; MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

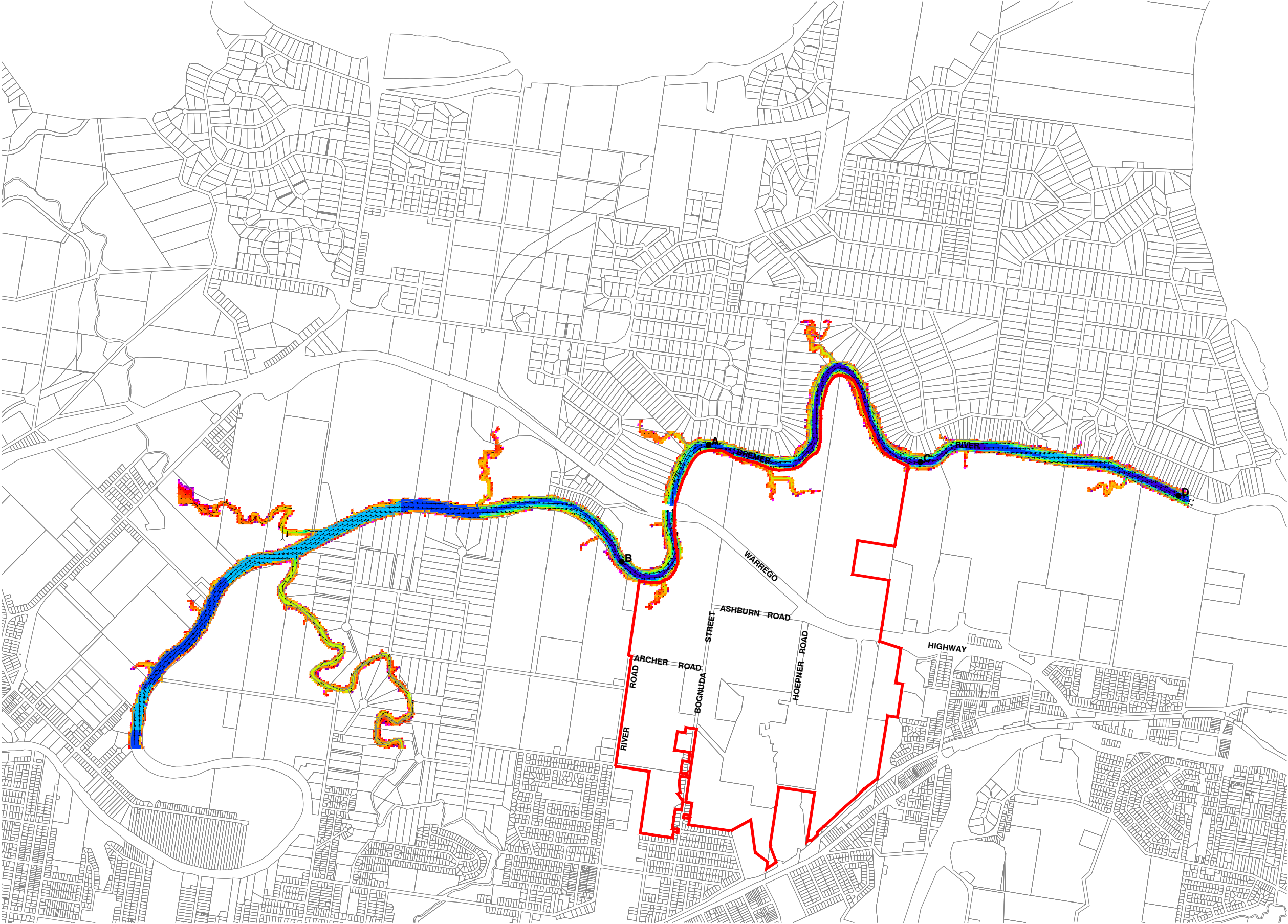
**FIGURE E.2.1**

**BASE CASE - DEPTH - SKM ULTIMATE 2 YEAR EVENT (Brem\_E08)**



Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:21pm





LEGEND

-  Site Boundary
-  Reporting Points

VELOCITIES

→ 1m/s

DEPTH (m)

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.2.2**

**BASE CASE - DEPTH - SKM ULTIMATE 5 YEAR EVENT (Brem\_E08)**

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.  
This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

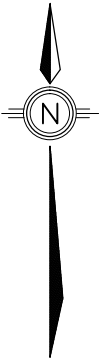
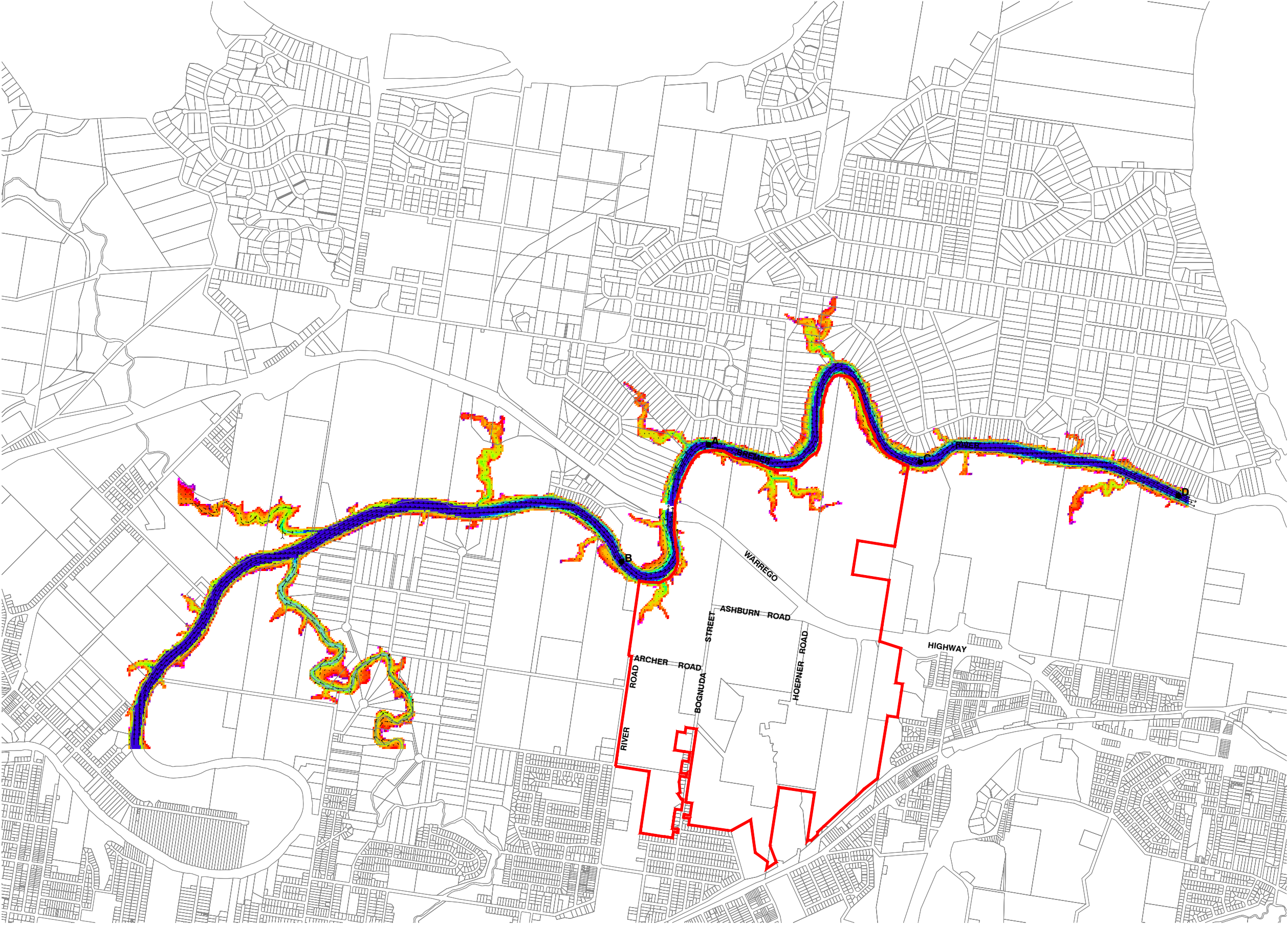
Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Insur; vref\_MGA



Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:21pm





LEGEND

-  Site Boundary
-  Reporting Points

VELOCITIES

→ 1m/s

DEPTH (m)

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.2.3**

**BASE CASE - DEPTH - SKM ULTIMATE 10 YEAR EVENT (Brem\_E08)**

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.  
This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

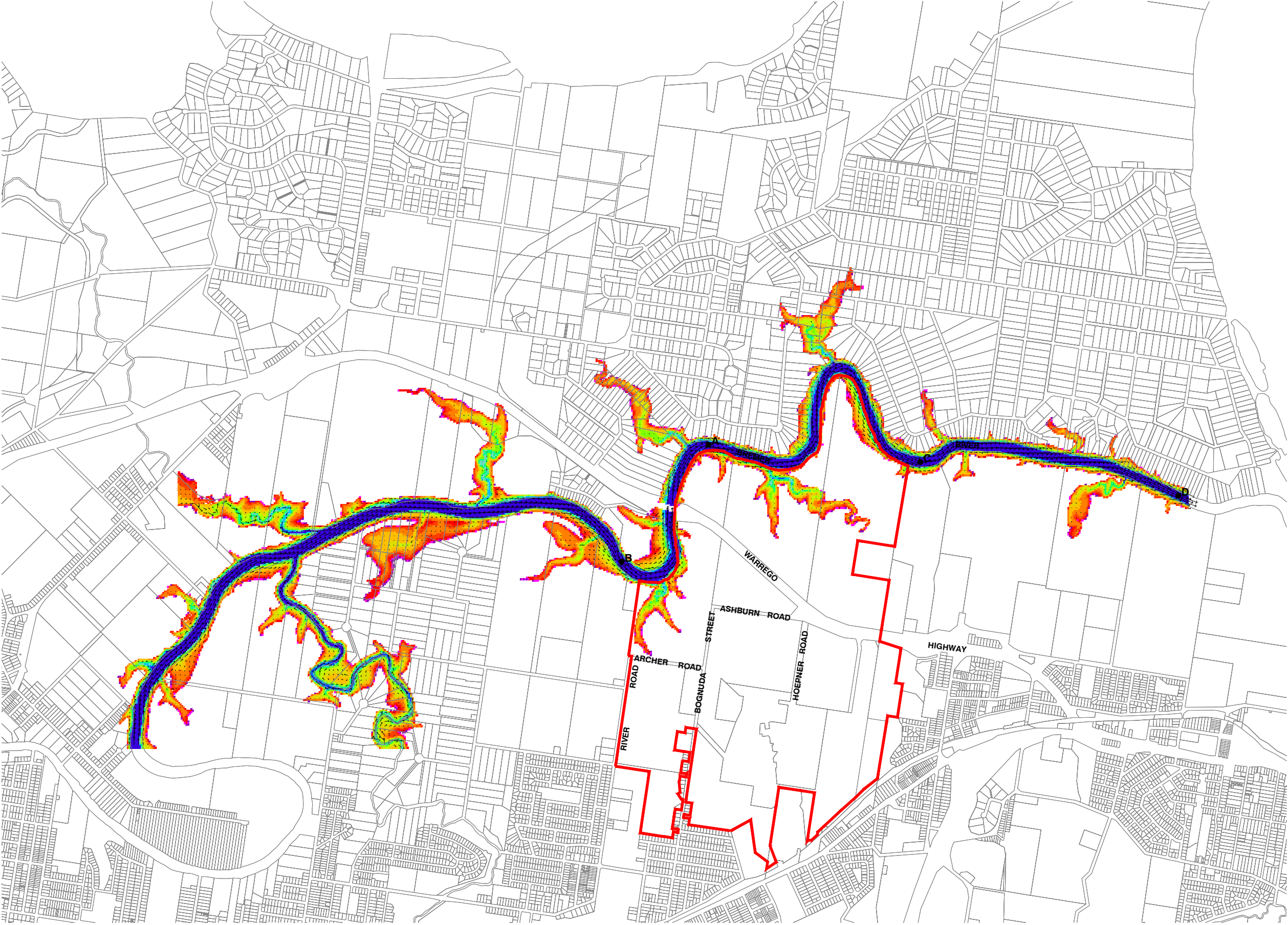
Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Insulch; DGNR MGA

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:22pm





LEGEND

- Site Boundary
- A Reporting Points

VELOCITIES

→ 1m/s

DEPTH (m)

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF: vref\_Results\_vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.2.4**

**BASE CASE - DEPTH - SKM ULTIMATE 20 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:22pm





LEGEND

- Site Boundary
- A Reporting Points

VELOCITIES

→ 1m/s

DEPTH (m)

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

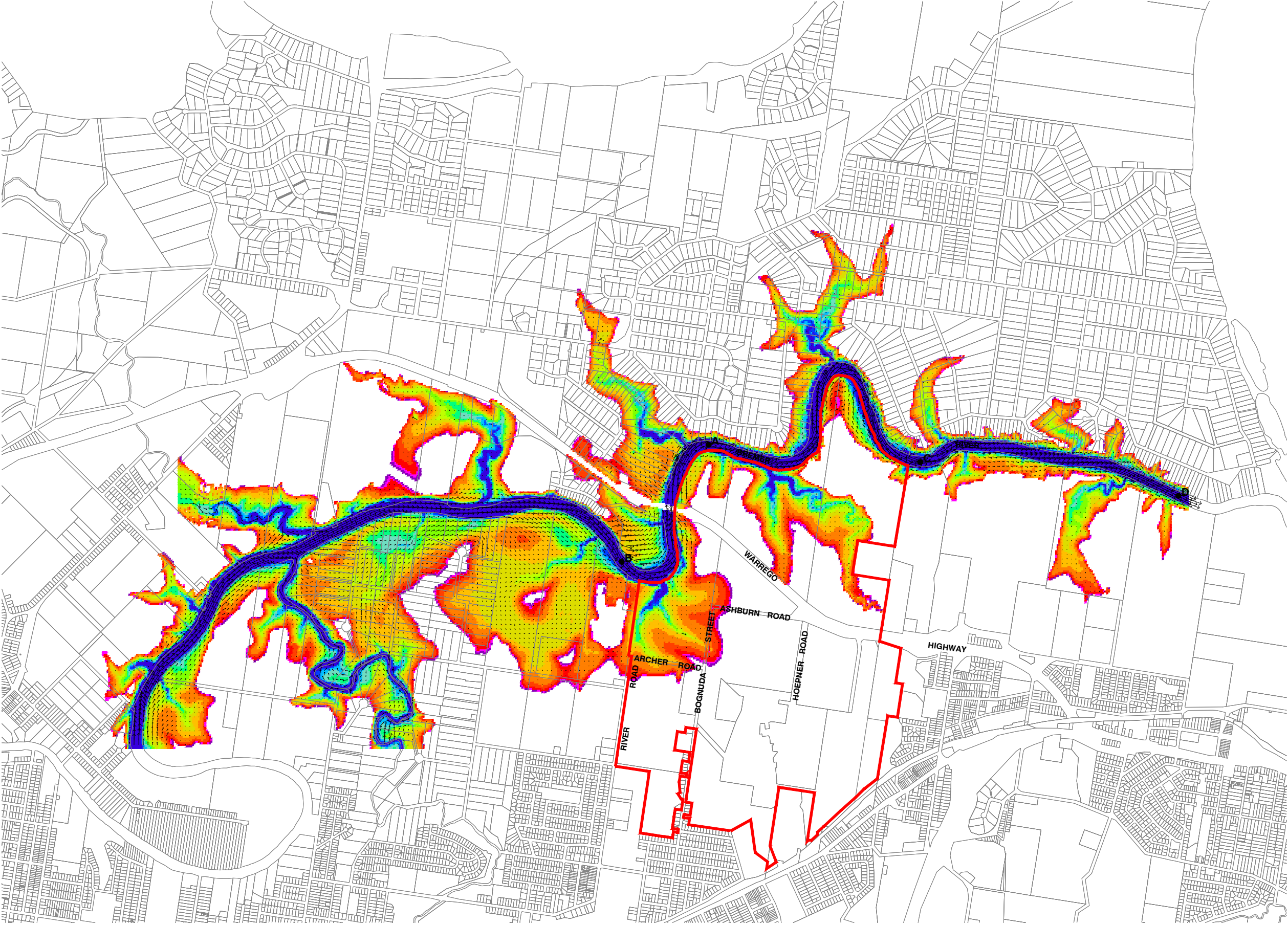
**FIGURE E.2.5**

**BASE CASE - DEPTH - SKM ULTIMATE 50 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:23pm





**LEGEND**

- Site Boundary
- Reporting Points

**VELOCITIES**

1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

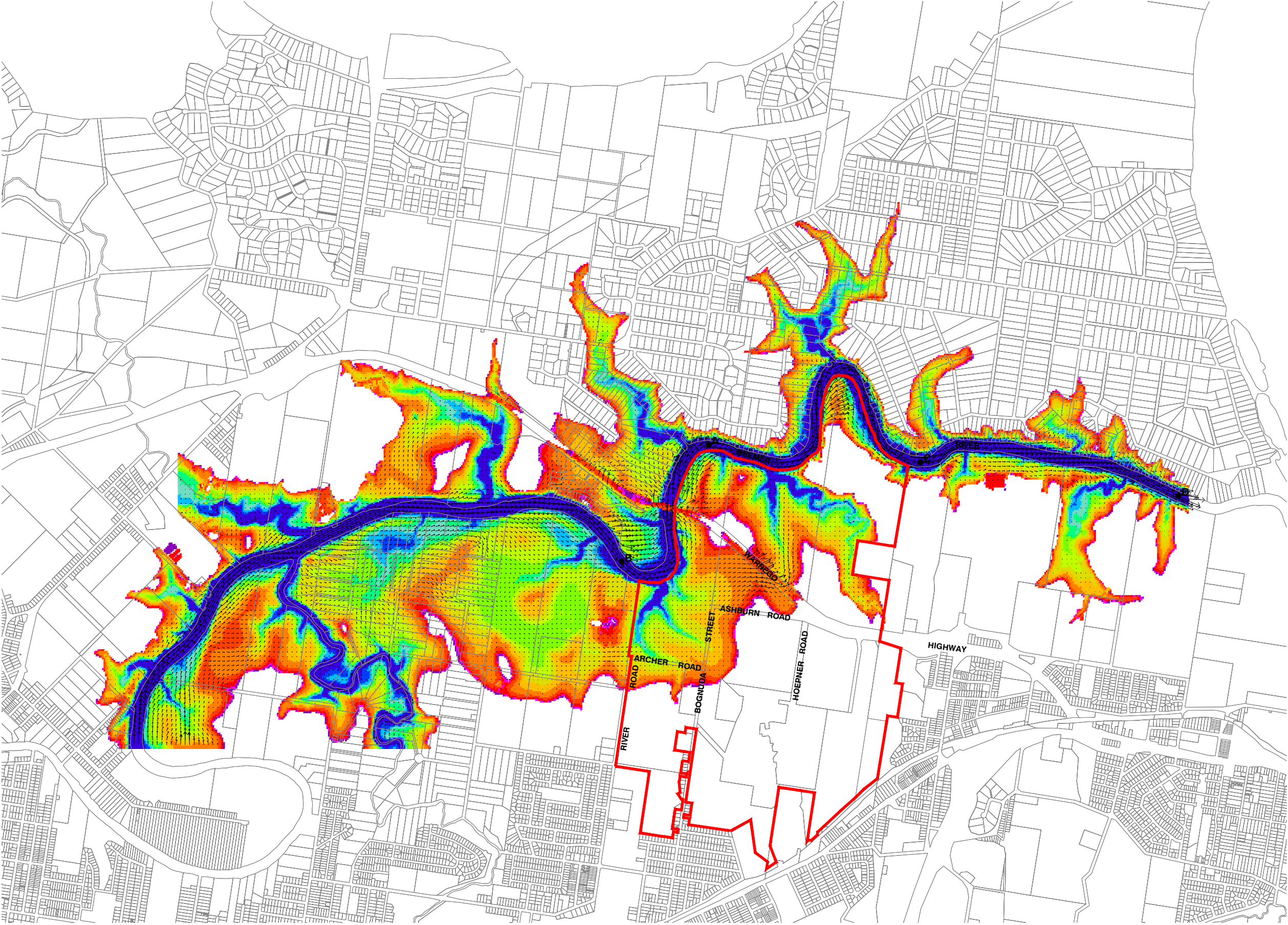
**FIGURE E.2.6**

**BASE CASE - DEPTH - SKM ULTIMATE 100 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:19pm





**LEGEND**

- Site Boundary
- A Reporting Points

**VELOCITIES**

— 1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

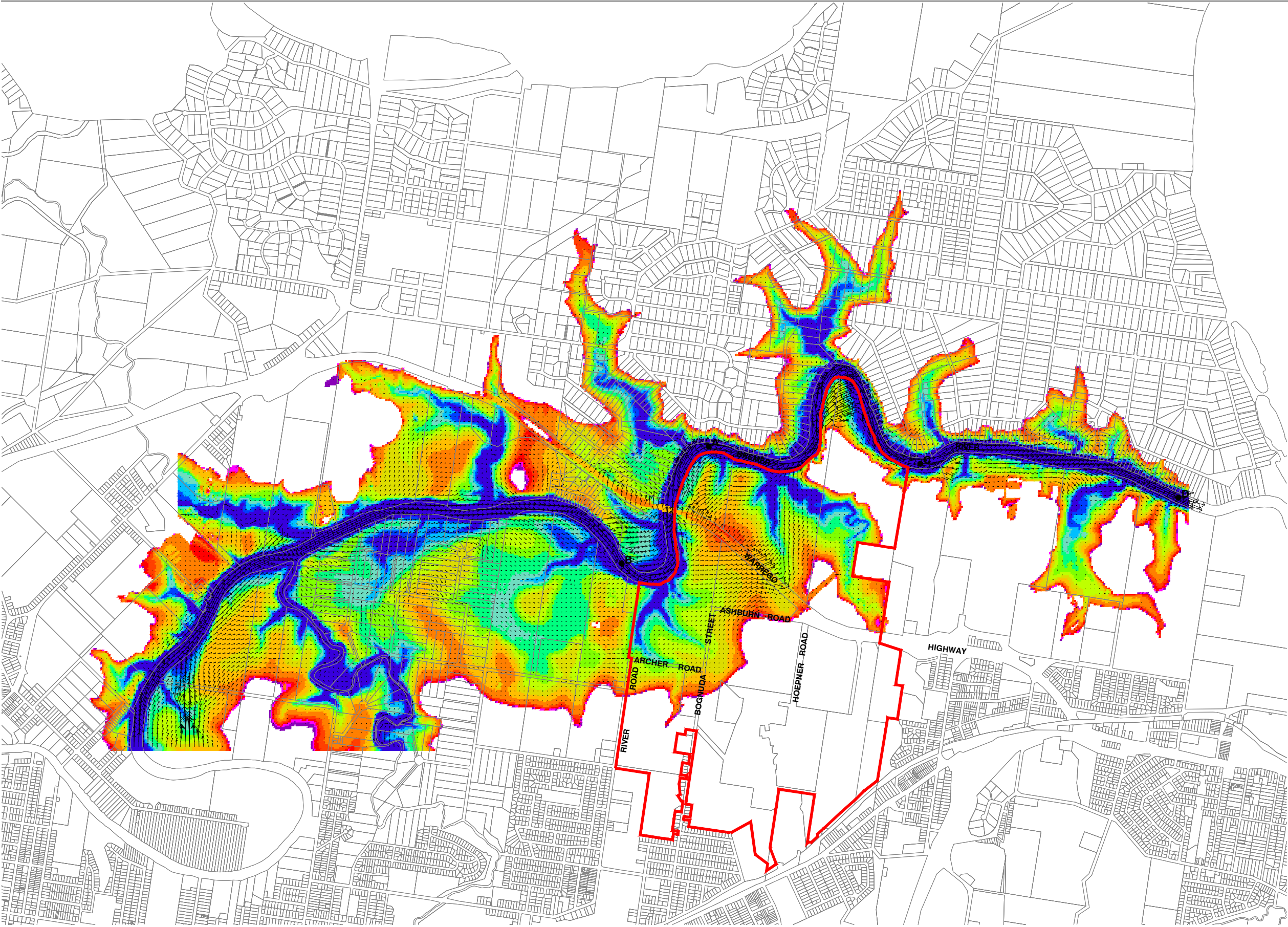
**FIGURE E.2.7**

**BASE CASE - DEPTH - SKM ULTIMATE 200 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:20pm





**LEGEND**

- Site Boundary
- A Reporting Points

**VELOCITIES**

1m/s

**DEPTH (m)**

- Above 10.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- 0.50 to 1.00
- 0.20 to 0.50
- 0.10 to 0.20
- 0.01 to 0.10

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.2.8**

**BASE CASE - DEPTH - SKM ULTIMATE 500 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:21pm

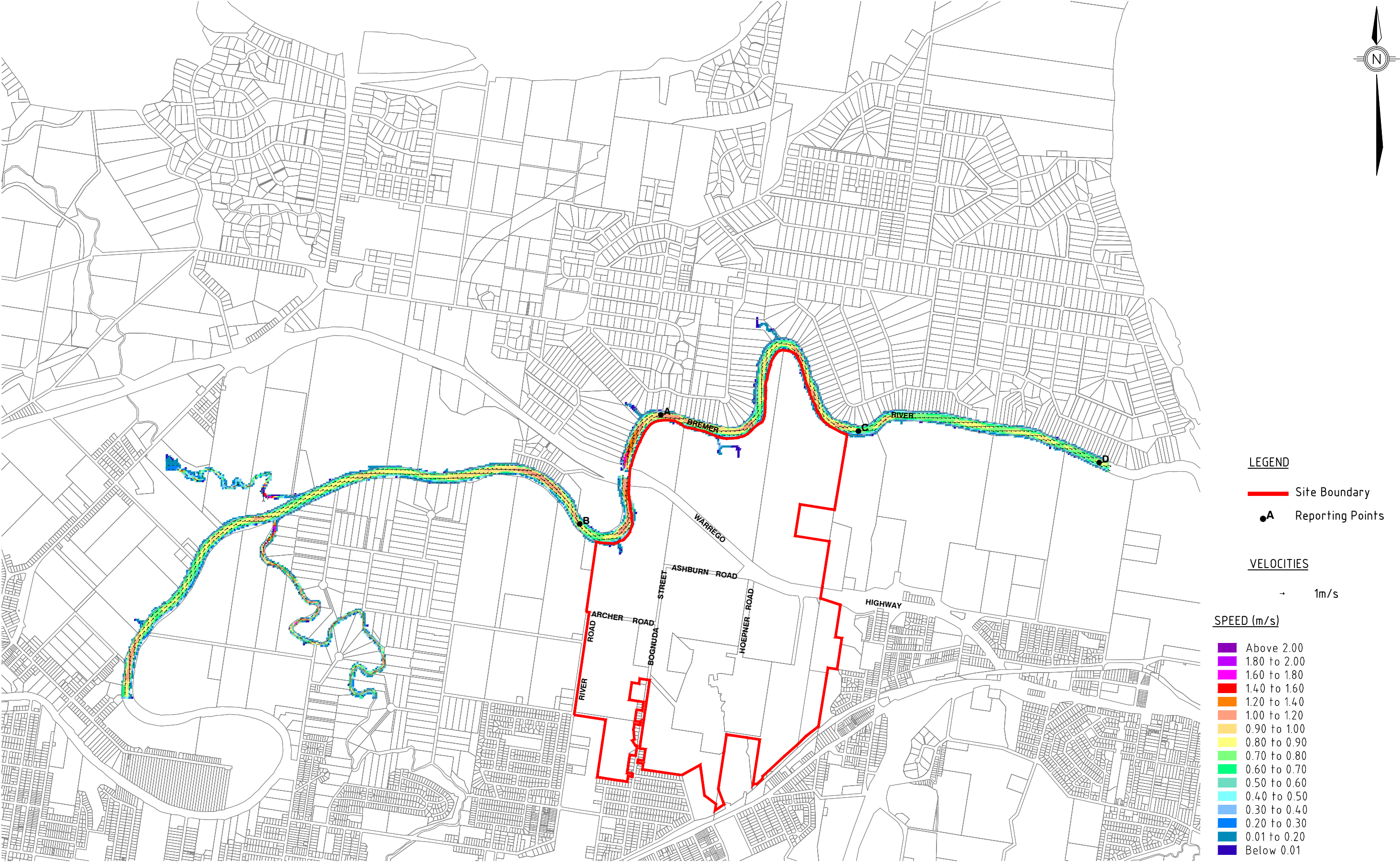


## **Appendix E.3**

### **Bremer River Flood SOBEK 2D Pre-Developed Base**

#### **Case Results – Speed**





© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

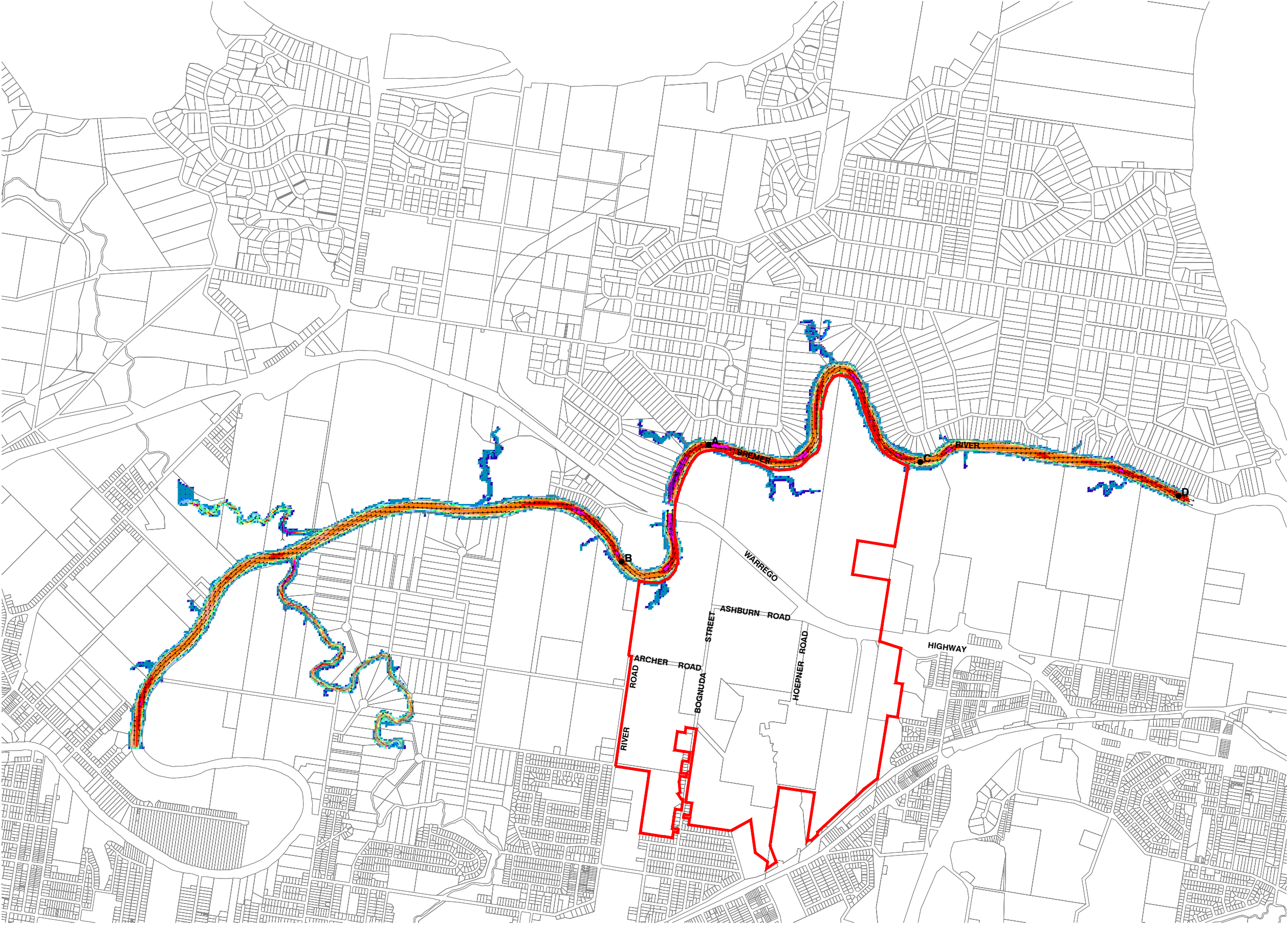
Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswich DGNR MGA

Scale 1:25000 (A3)  
**FIGURE E.3.1**  
**BASE CASE - SPEED - SKM ULTIMATE 2 YEAR EVENT (Brem\_E08)**



Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:23pm





















LEGEND

-  Site Boundary
-  Reporting Points

VELOCITIES

→ 1m/s

SPEED (m/s)

-  Above 2.00
-  1.80 to 2.00
-  1.60 to 1.80
-  1.40 to 1.60
-  1.20 to 1.40
-  1.00 to 1.20
-  0.90 to 1.00
-  0.80 to 0.90
-  0.70 to 0.80
-  0.60 to 0.70
-  0.50 to 0.60
-  0.40 to 0.50
-  0.30 to 0.40
-  0.20 to 0.30
-  0.01 to 0.20
-  Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswch; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.3.2**

**BASE CASE - SPEED - SKM ULTIMATE 5 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:24pm





© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

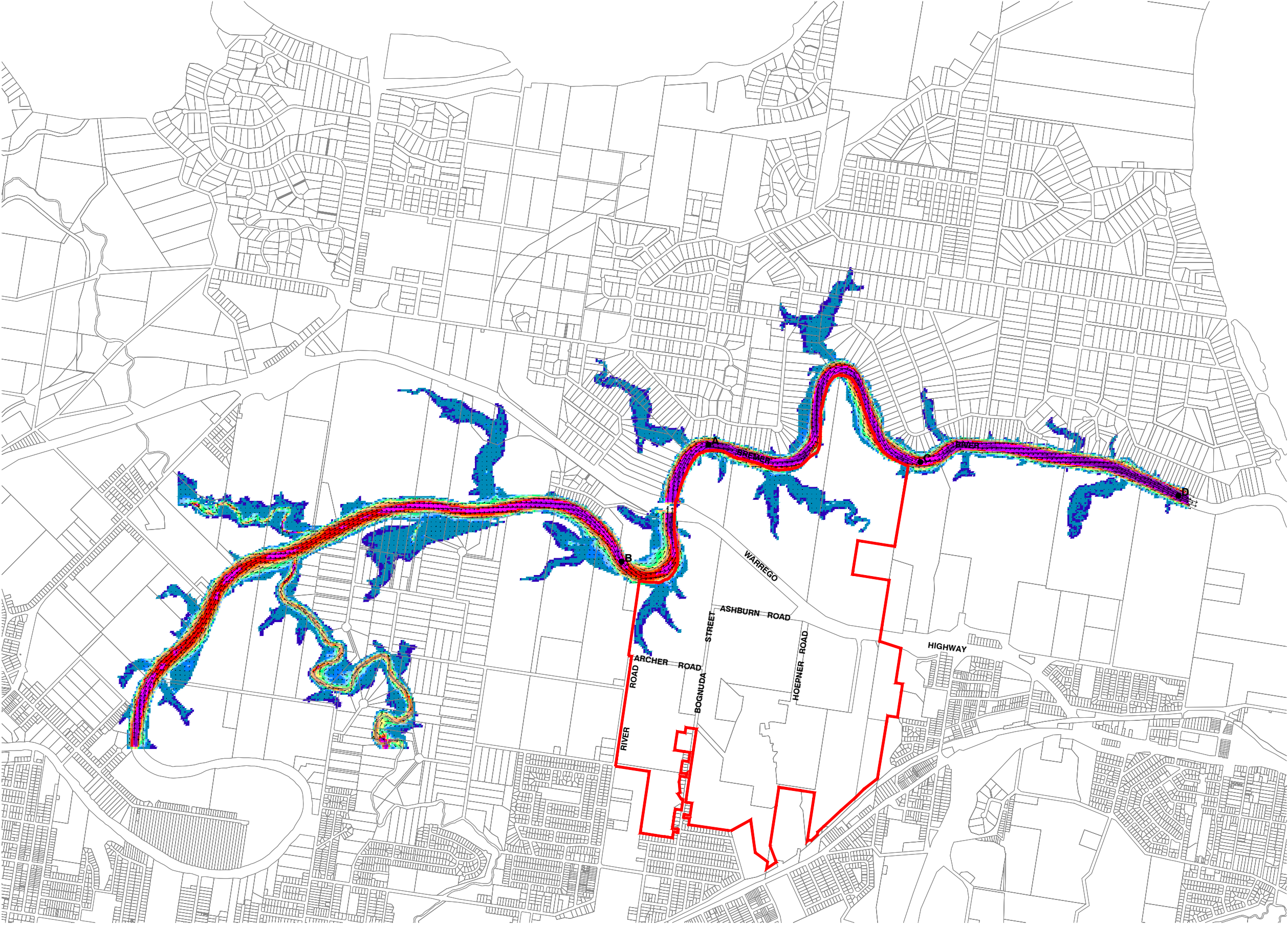
Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Inschw; DGNR MGA

Scale 1:25000 (A3)  
**FIGURE E.3.3**  
**BASE CASE - SPEED - SKM ULTIMATE 10 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714  
PRINT DATE: 11 May, 2012 - 7:24pm





**LEGEND**

- Site Boundary
- A Reporting Points

**VELOCITIES**

→ 1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\J8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF: vref\_Results\_vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

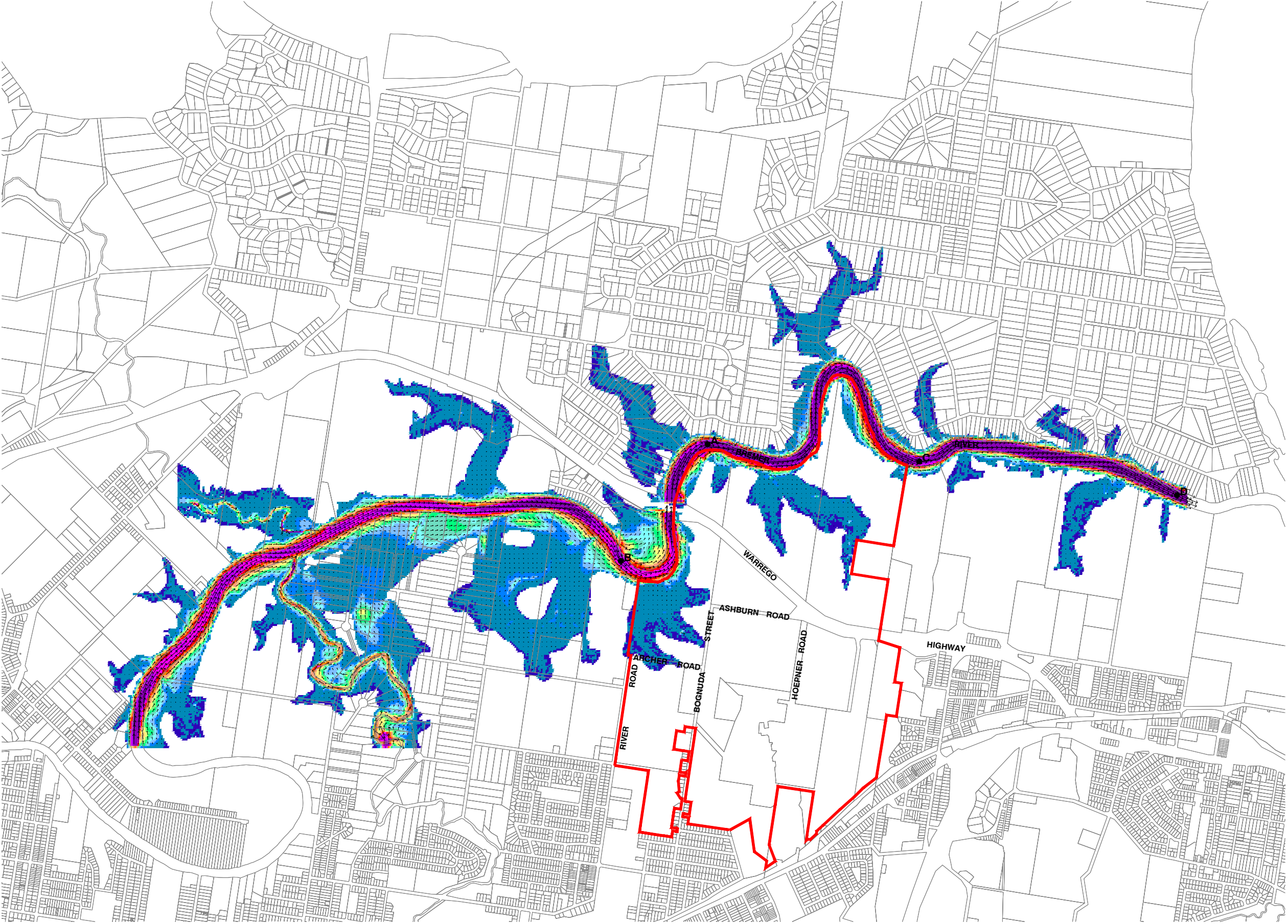
**FIGURE E.3.4**

**BASE CASE - SPEED - SKM ULTIMATE 20 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:24pm





**LEGEND**

- Site Boundary
- Reporting Points

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF: vref\_Results\_vr-inswch DGNR MGA

Scale 1:25000 (A3)

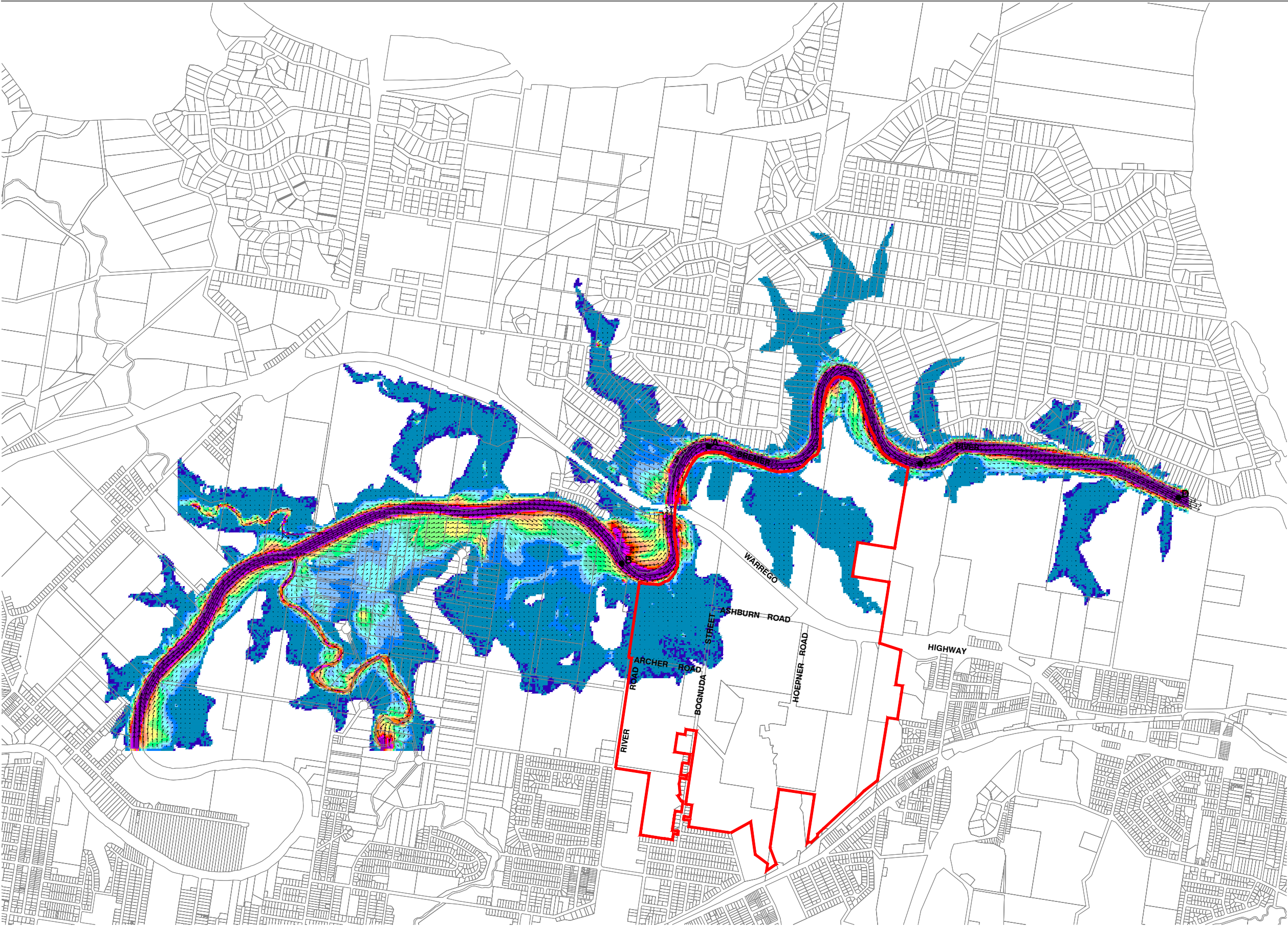
**FIGURE E.3.5**

**BASE CASE - SPEED - SKM ULTIMATE 50 YEAR EVENT (Brem\_E08)**



Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:25pm





LEGEND

-  Site Boundary
-  Reporting Points

VELOCITIES

1m/s

SPEED (m/s)

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

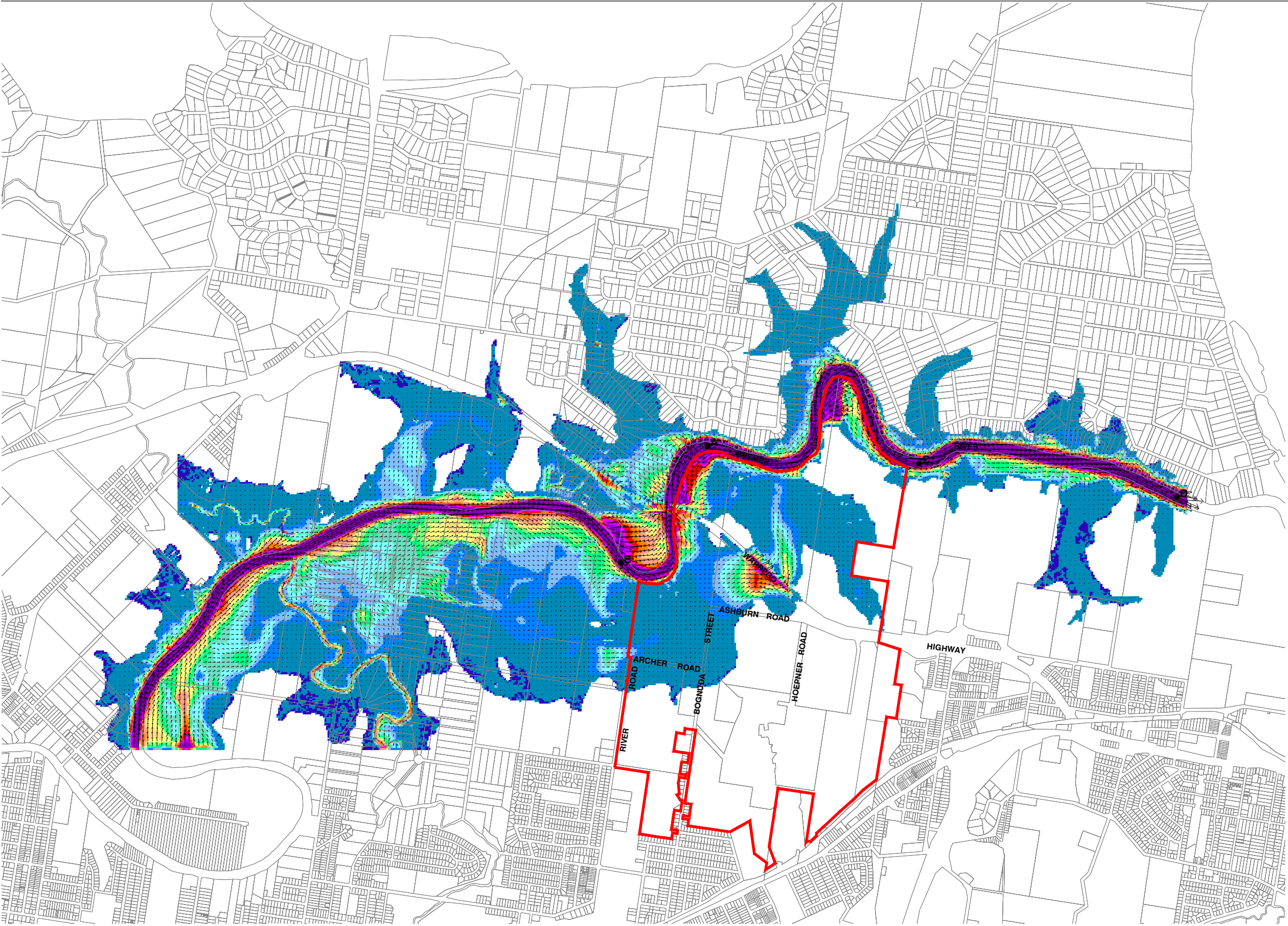
**FIGURE E.3.6**

**BASE CASE - SPEED - SKM ULTIMATE 100 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:21pm





**LEGEND**

- Site Boundary
- Reporting Points

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

Scale 1:25000 (A3)

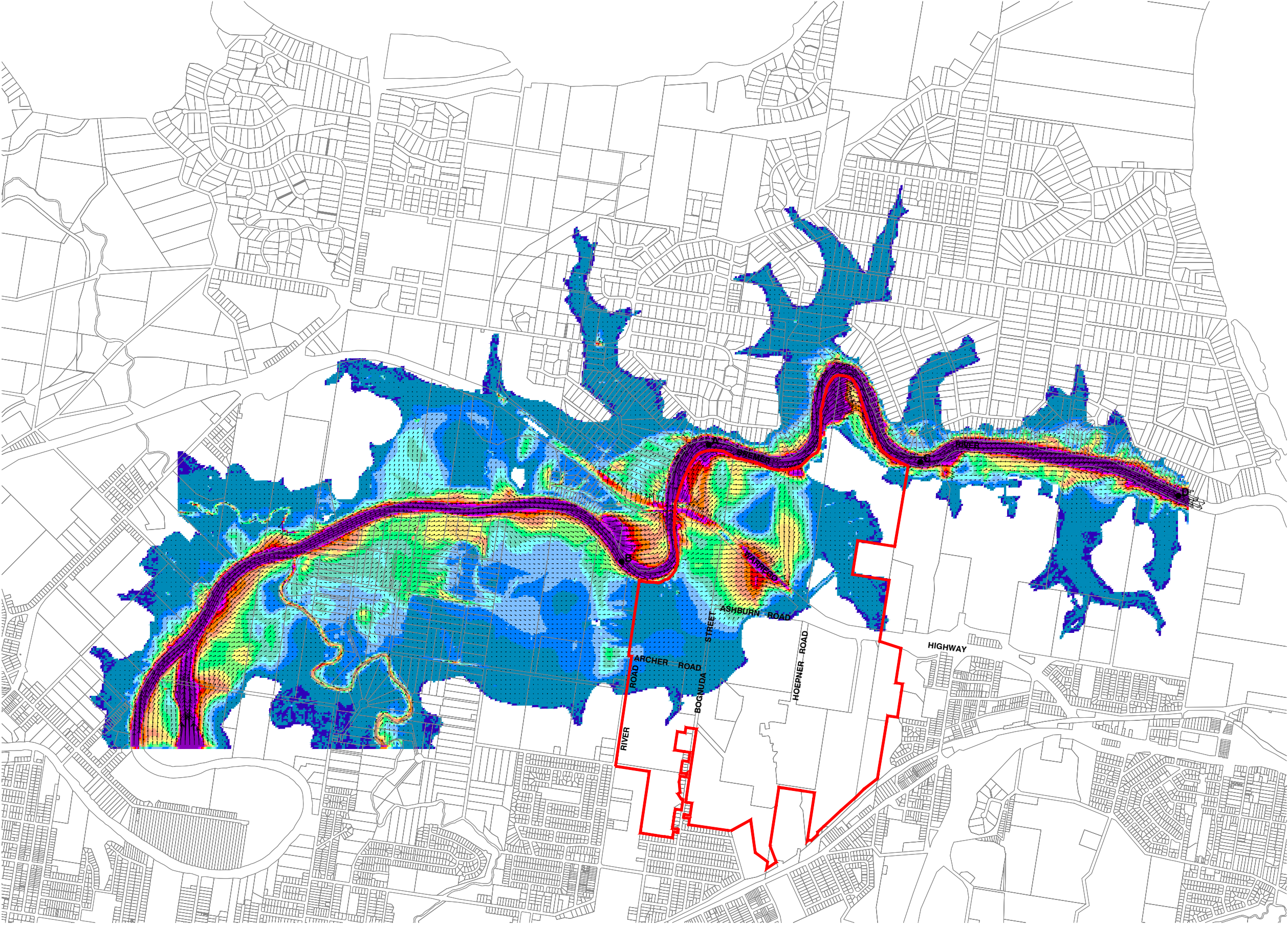
**FIGURE E.3.7**

**BASE CASE - SPEED - SKM ULTIMATE 200 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:22pm





**LEGEND**

- Site Boundary
- Reporting Points

**VELOCITIES**

1m/s

**SPEED (m/s)**

- Above 2.00
- 1.80 to 2.00
- 1.60 to 1.80
- 1.40 to 1.60
- 1.20 to 1.40
- 1.00 to 1.20
- 0.90 to 1.00
- 0.80 to 0.90
- 0.70 to 0.80
- 0.60 to 0.70
- 0.50 to 0.60
- 0.40 to 0.50
- 0.30 to 0.40
- 0.20 to 0.30
- 0.01 to 0.20
- Below 0.01

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswch DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.3.8**

**BASE CASE - SPEED - SKM ULTIMATE 500 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:23pm

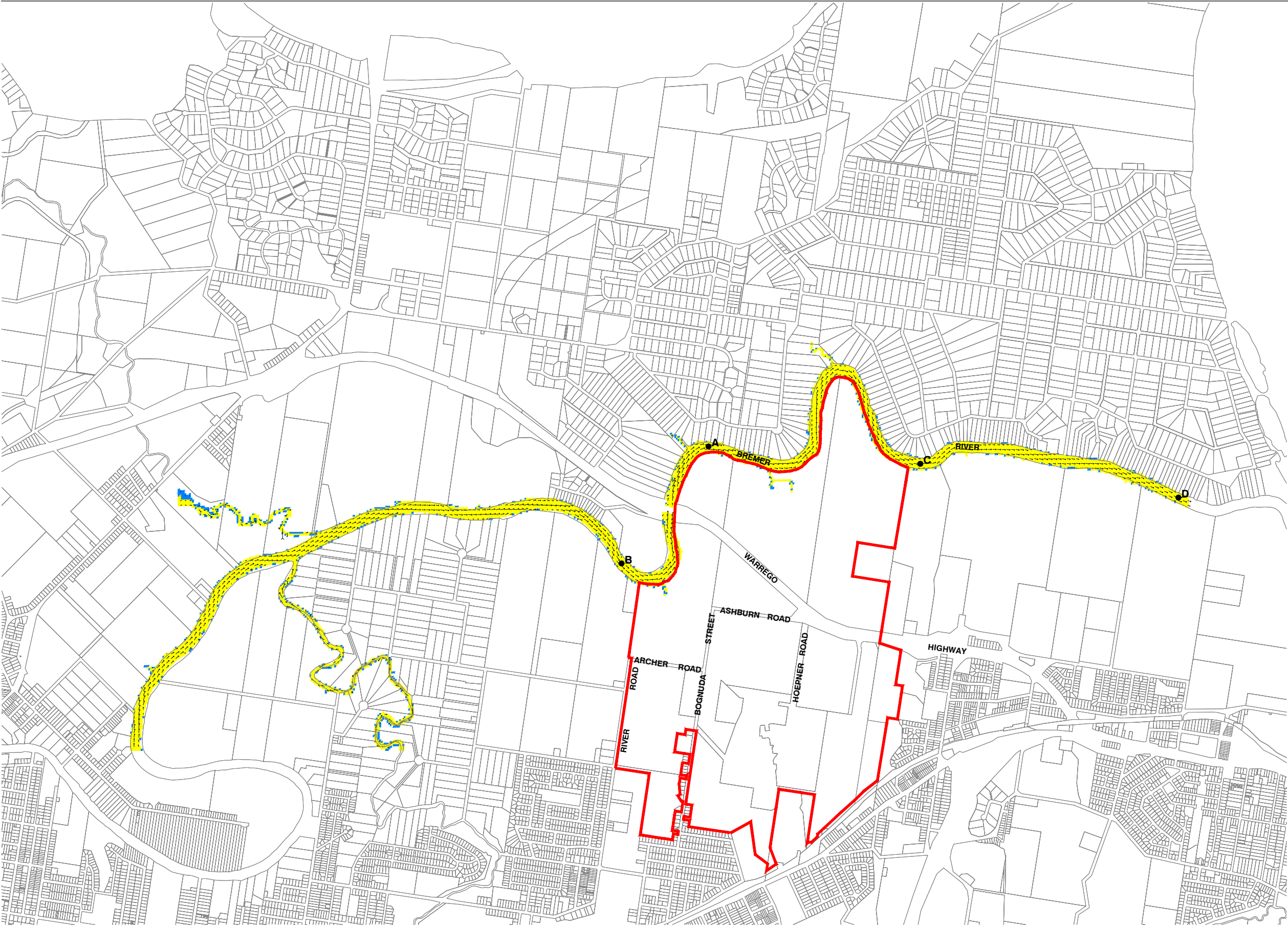
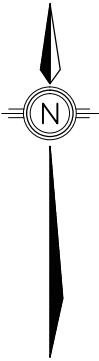


## **Appendix E.4**

### **Bremer River Flood SOBEK 2D Pre-Developed Base**

#### **Case Results – Hazard (Safety Product)**





LEGEND

- Site Boundary
- A Reporting Points

VELOCITIES

→ 1m/s

HAZARD (vxd Product)

- High
- Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswch; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

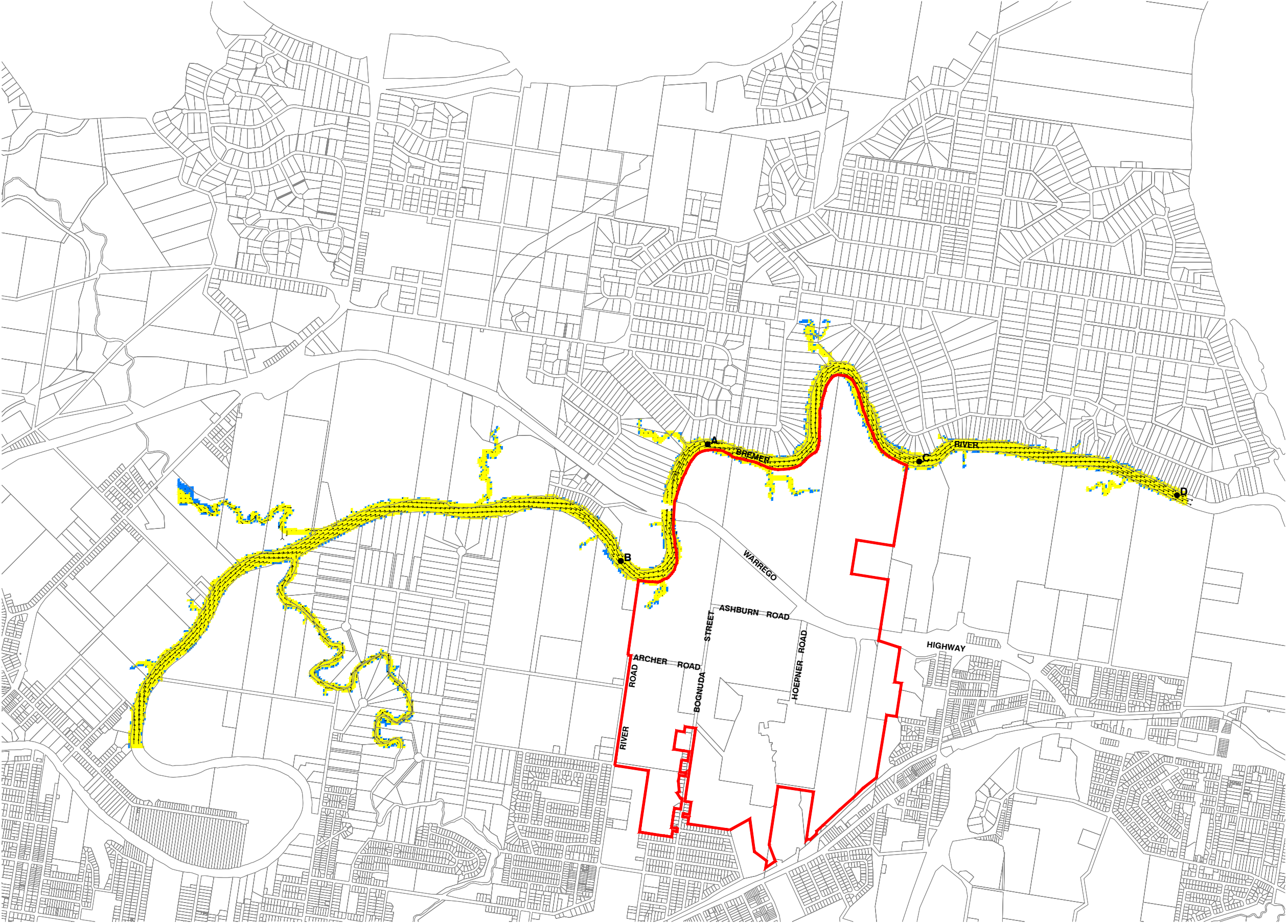
**FIGURE E.4.1**

**BASE CASE - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 2 YEAR EVENT (Brem\_E08)**



Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:25pm





LEGEND

-  Site Boundary
-  Reporting Points

VELOCITIES

→ 1m/s

HAZARD (vxd Product)

-  High
-  Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswch; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

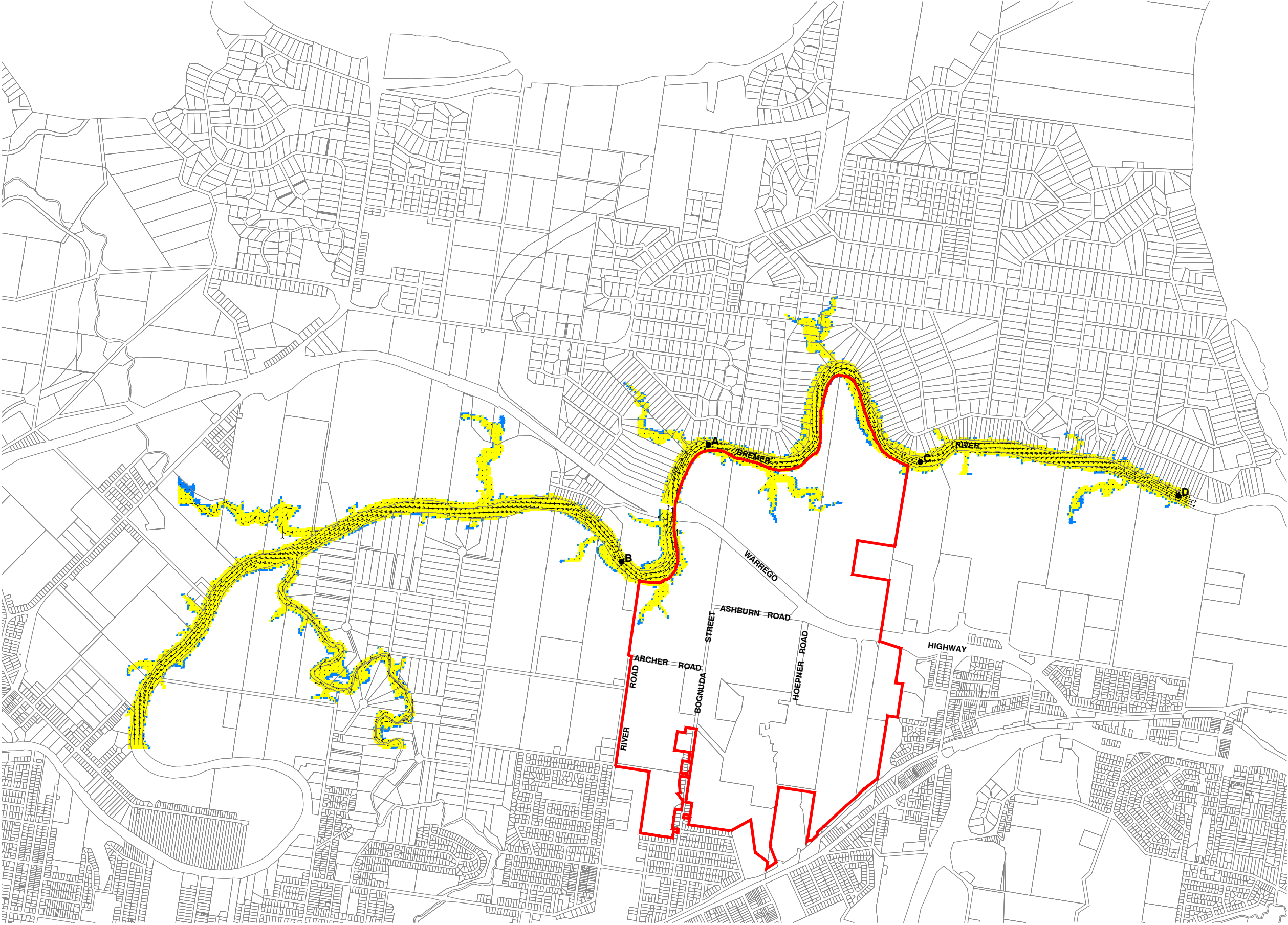
**FIGURE E.4.2**

**BASE CASE - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 5 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:26pm





LEGEND

- Site Boundary
- A Reporting Points

VELOCITIES

→ 1m/s

HAZARD (vxd Product)

- High
- Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Insur; vref\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

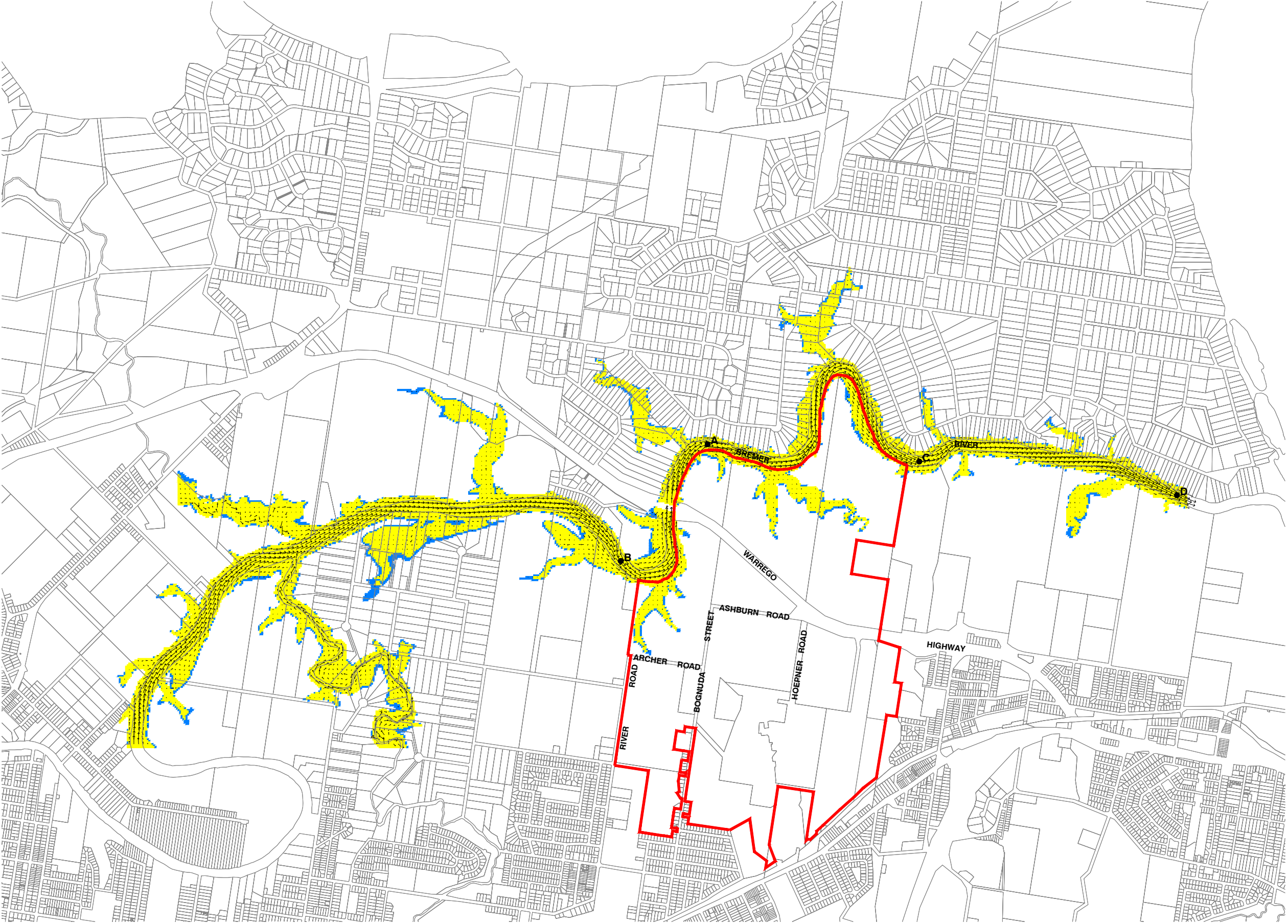
**FIGURE E.4.3**

**BASE CASE - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 10 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:26pm





LEGEND

- Site Boundary
- Reporting Points

VELOCITIES

1m/s

HAZARD (vxd Product)

- High
- Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswch; DGNR; MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

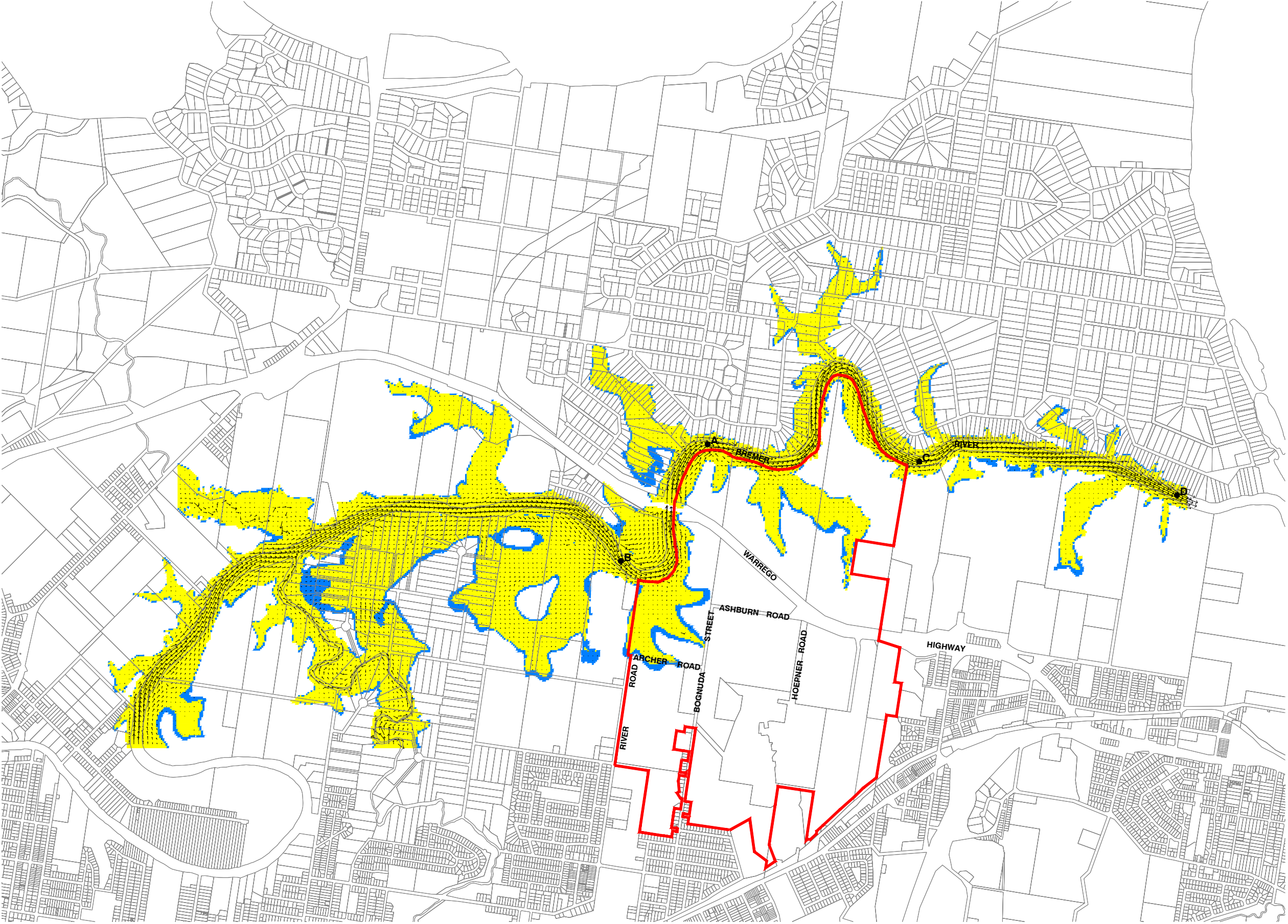
**FIGURE E.4.4**

**BASE CASE - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 20 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:27pm





LEGEND

- Site Boundary
- Reporting Points

VELOCITIES

1m/s

HAZARD (vxd Product)

- High
- Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswch; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

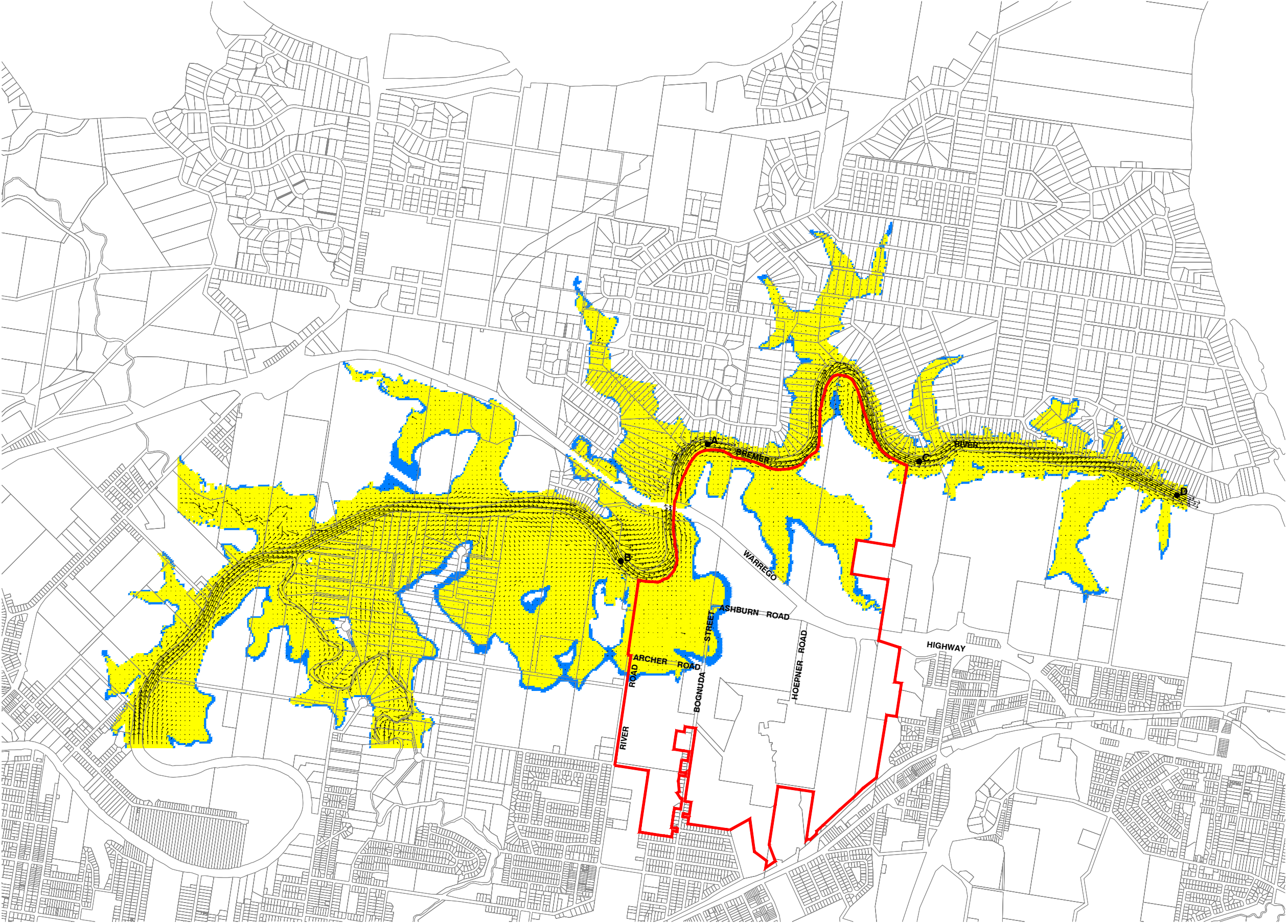
**FIGURE E.4.5**

**BASE CASE - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 50 YEAR EVENT (Brem\_E08)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:27pm





**LEGEND**

- Site Boundary
- Reporting Points

**VELOCITIES**

1m/s

**HAZARD (vxd Product)**

- High
- Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref\_Results; vref\_Insur; DFIGR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.4.6**

**BASE CASE - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 100 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:55pm





LEGEND

- Site Boundary
- A Reporting Points

VELOCITIES

— 1m/s

HAZARD (vxd Product)

- High
- Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref-Results: vr-inswich DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

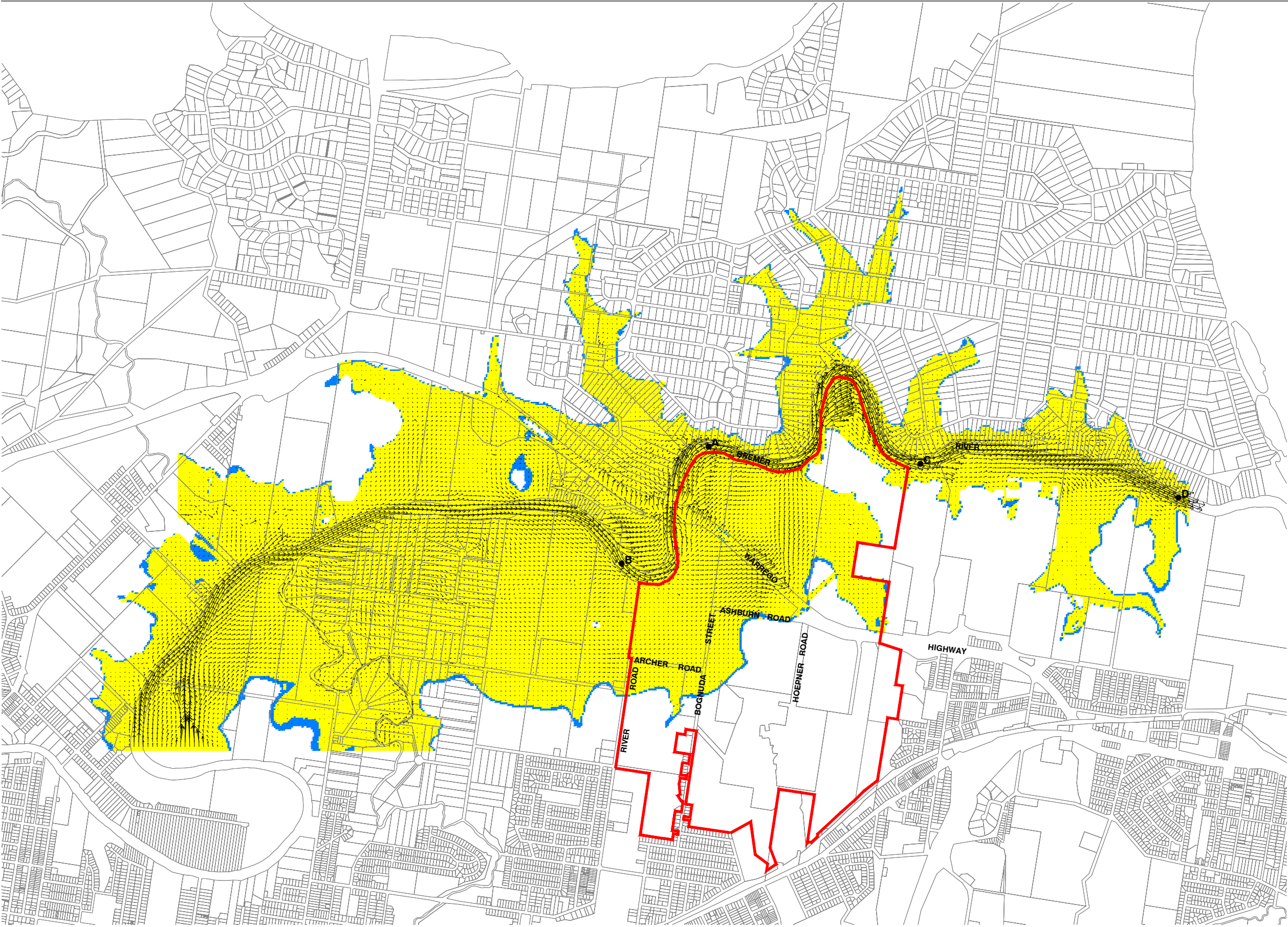
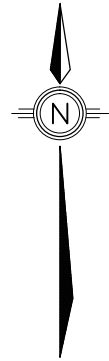
**FIGURE E.4.7**

**BASE CASE - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 200 YEAR EVENT (Brem\_E08a)**



Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:56pm





LEGEND

-  Site Boundary
-  Reporting Points

VELOCITIES

1m/s

HAZARD (vxd Product)

-  High
-  Low

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: April 2012

Walker Corporation Pty Ltd  
CAD FILE: 0:\LJ8714\Figures\R3v5\_Masterplan\_Flooding\Appendices\App E\Figure\_R3v5\_E08a\_Brem.dwg  
XREF's: vref\_Results; vref\_Citiswich; DGNR MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE E.4.8**

**BASE CASE - HAZARD (SAFETY PRODUCT) - SKM ULTIMATE 500 YEAR EVENT (Brem\_E08a)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 7:56pm

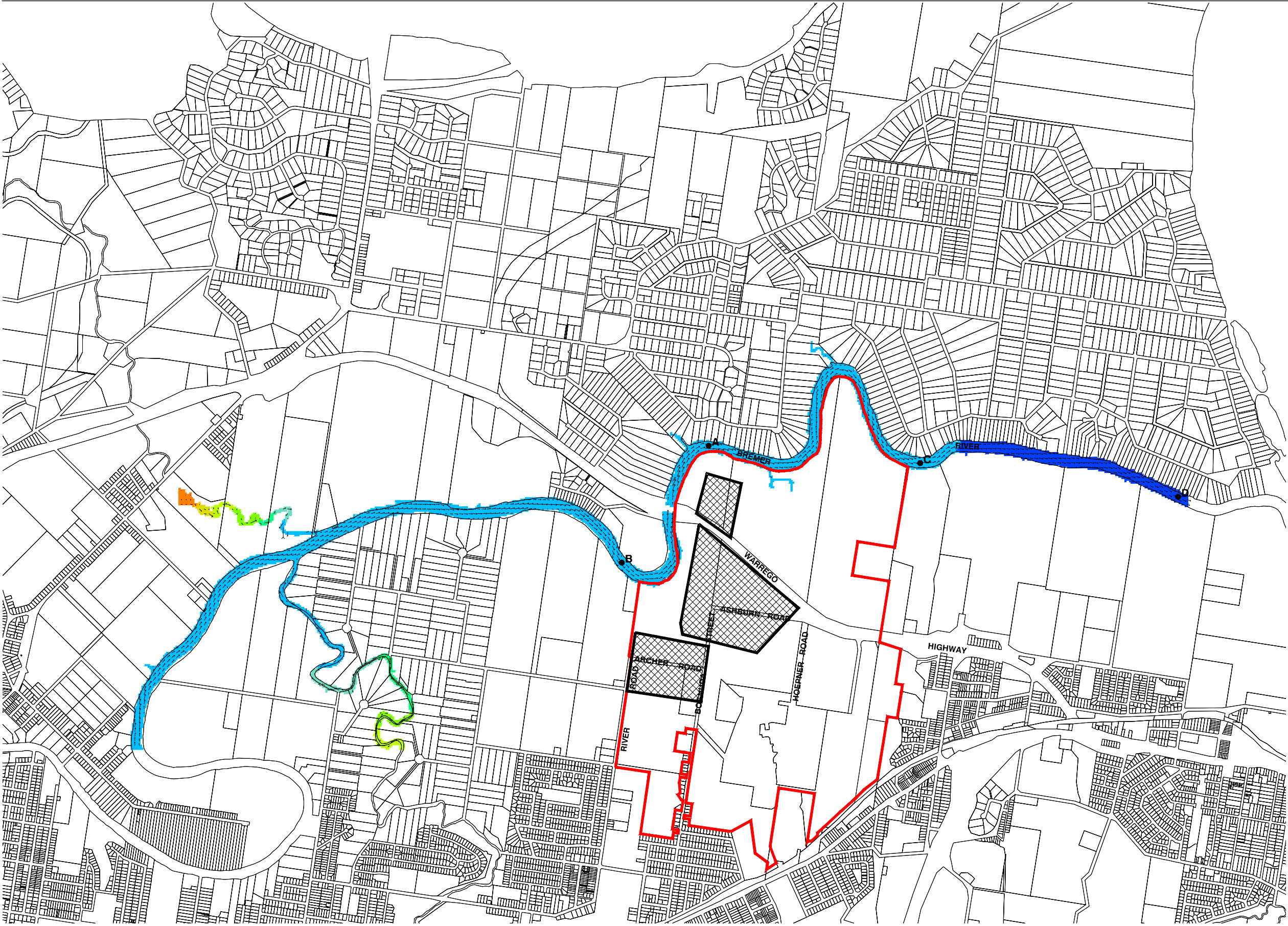


## **Appendix F.1**

### **Bremer River Flood SOBEK 2D Existing Current Case**

#### **Results – Water Surface Level**





**LEGEND**

- Site Boundary
- Reporting Points
- Existing Current Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08c\_Brem.dwg  
XREF's: xref-Results; xr-lpswich\_DCDB\_MGA

**EXISTING CURRENT - WATER SURFACE LEVELS - SKM ULTIMATE 2 YEAR EVENT (Brem\_E08c)**

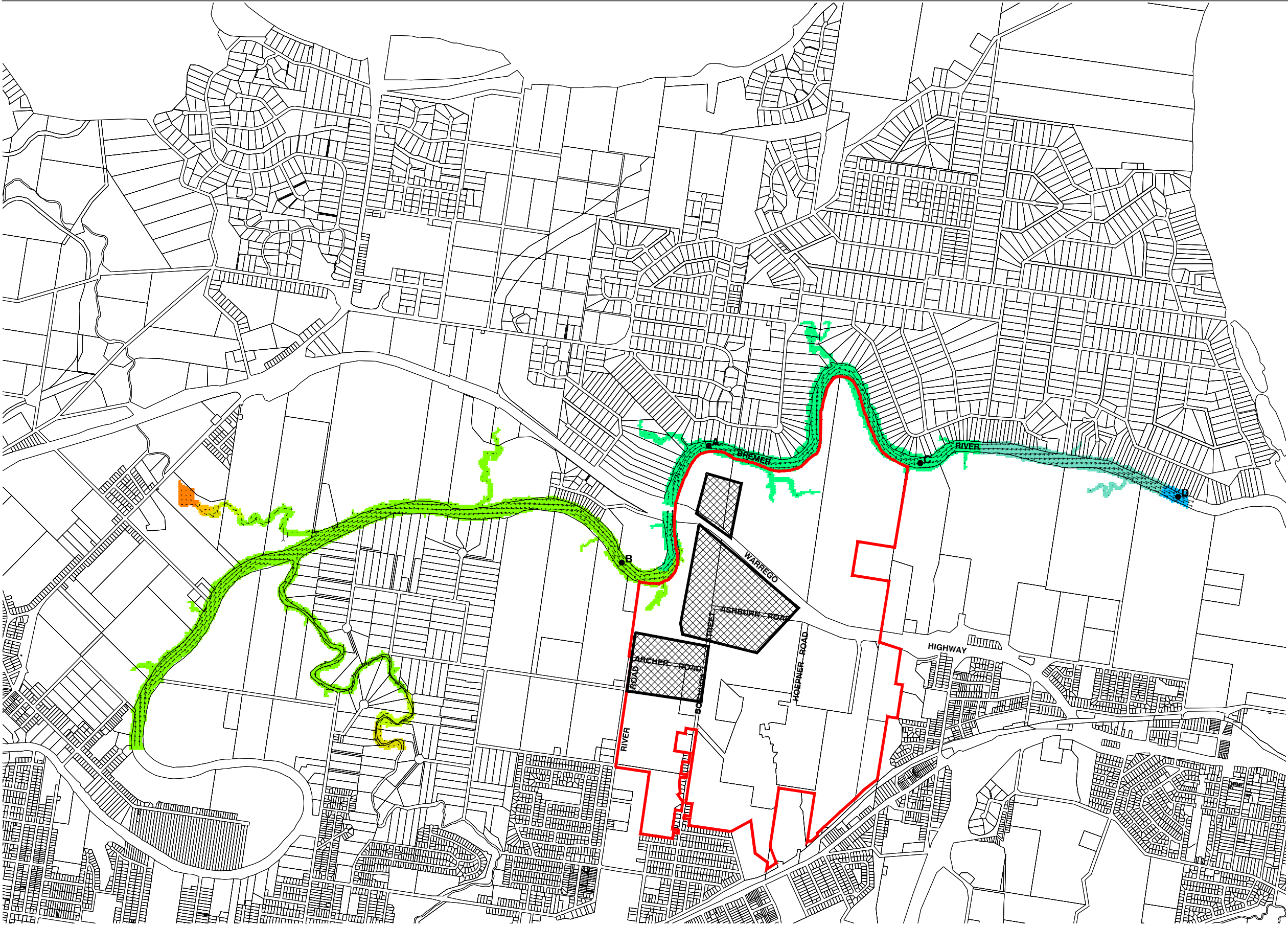
Scale 1:25000 (A3)

**FIGURE F.1.1**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 3:05pm





**LEGEND**

- Site Boundary
- Reporting Points
- Existing Current Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08c\_Brem.dwg  
XREF's: xref-Results; xr-lpswich\_DCDB\_MGA

**EXISTING CURRENT - WATER SURFACE LEVELS - SKM ULTIMATE 5 YEAR EVENT (Brem\_E08c)**

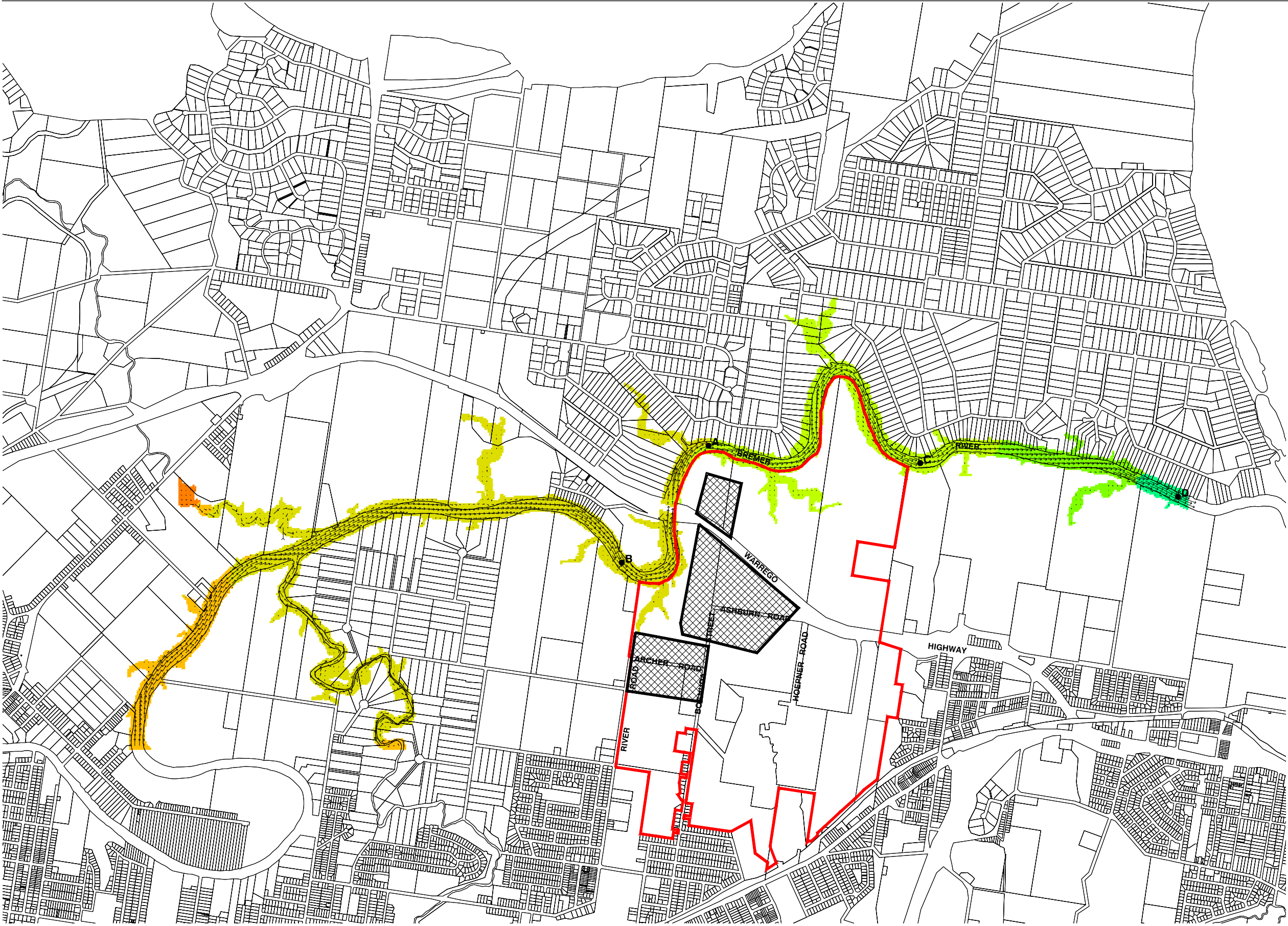
Scale 1:25000 (A3)

**FIGURE F.1.2**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 3:05pm





**LEGEND**

- Site Boundary
- Reporting Points
- Existing Current Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08c\_Brem.dwg  
XREF's: xref-Results; xref-lpswich\_DC08\_MGA

**EXISTING CURRENT - WATER SURFACE LEVELS - SKM ULTIMATE 10 YEAR EVENT (Brem\_E08c)**

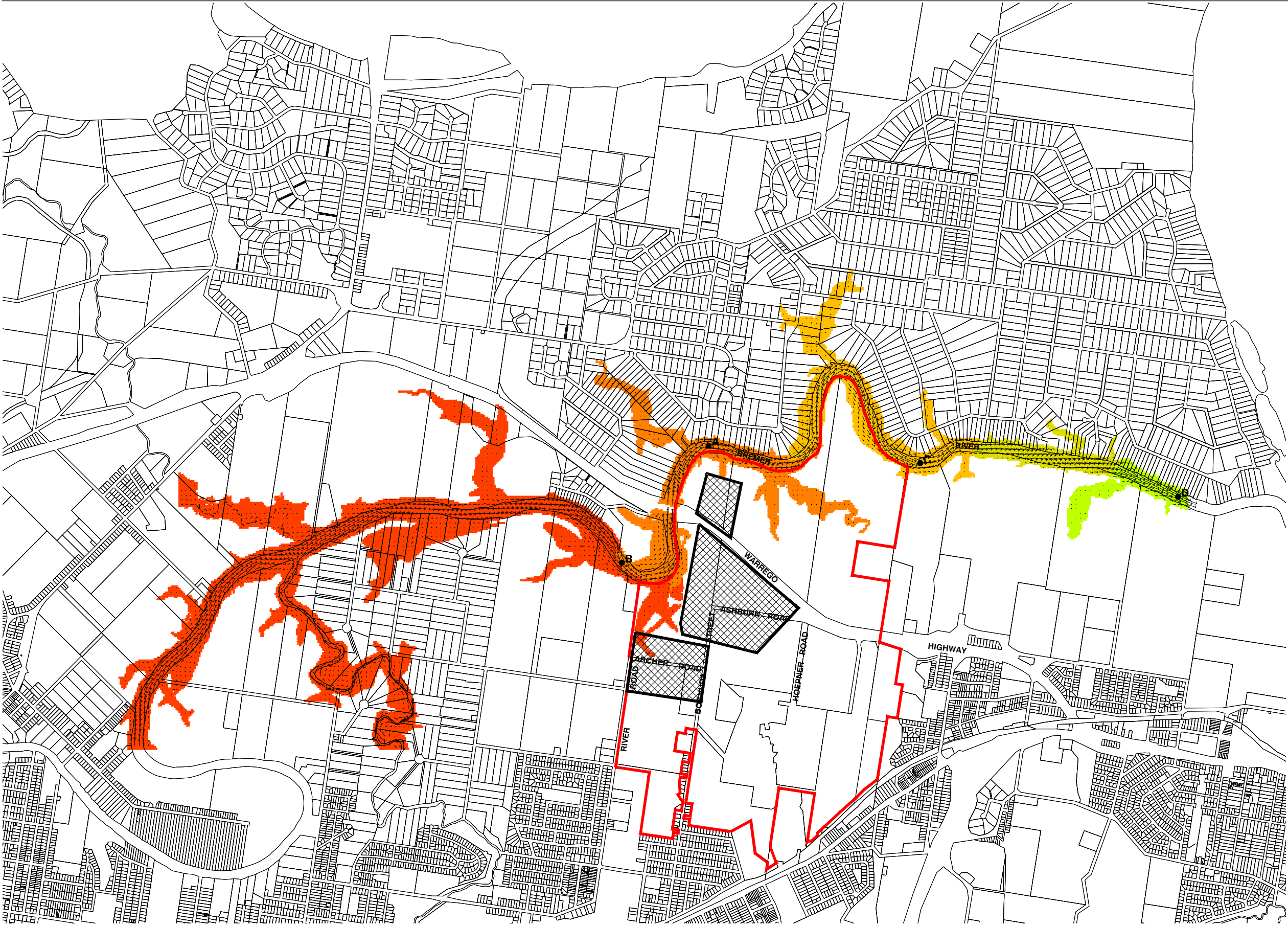
Scale 1:25000 (A3)

**FIGURE F.1.3**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 3:05pm





**LEGEND**

- Site Boundary
- Reporting Points
- Existing Current Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd

CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08c\_Brem.dwg

XREF's: xref-Results; xr-lpswich\_DCDB\_MGA

**EXISTING CURRENT - WATER SURFACE LEVELS - SKM ULTIMATE 20 YEAR EVENT (Brem\_E08c)**

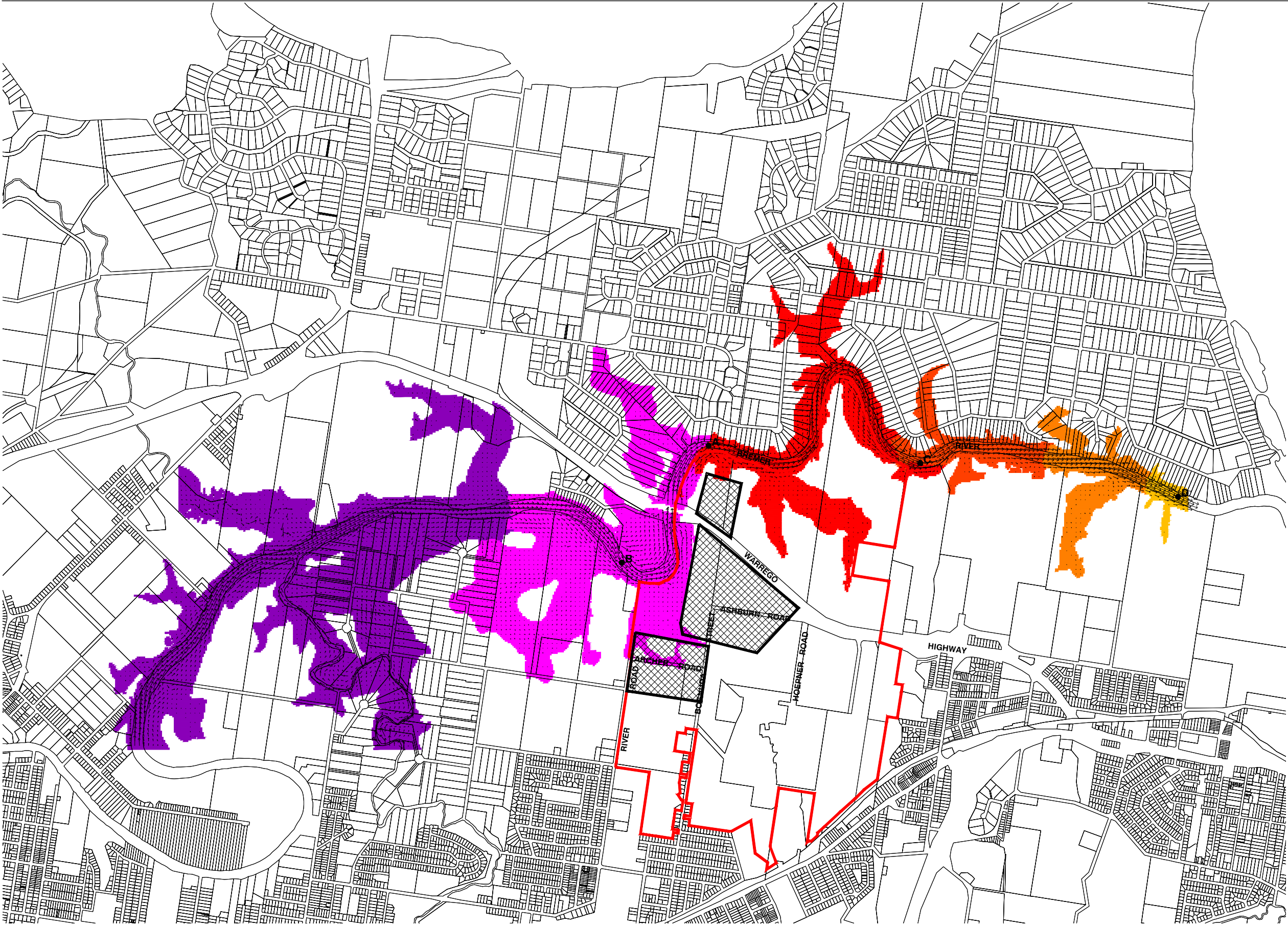
Scale 1:25000 (A3)

**FIGURE F.1.4**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 3:06pm





**LEGEND**

- Site Boundary
- Reporting Points
- Existing Current Fill Boundary

**VELOCITIES**

1m/s

**WATER SURFACE LEVEL (mAHD)**

- Above 13.00
- 12.00 to 13.00
- 11.00 to 12.00
- 10.00 to 11.00
- 9.00 to 10.00
- 8.00 to 9.00
- 7.00 to 8.00
- 6.00 to 7.00
- 5.00 to 6.00
- 4.00 to 5.00
- 3.00 to 4.00
- 2.00 to 3.00
- 1.00 to 2.00
- Below 1.00

© Cardno Lawson Treloar Pty Ltd All Rights Reserved 2012.  
Copyright in the whole and every part of this drawing belongs to Cardno Lawson Treloar Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or on any media, to any person other than by agreement with Cardno Lawson Treloar Pty Ltd.

This document is produced by Cardno Lawson Treloar Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Lawson Treloar Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Rev: 0 Date: May 2012

Walker Corporation Pty Ltd  
CAD FILE: C:\Users\james.martin\local settings\temp\AcPublish\_5320\Figure\_R3v5\_E08c\_Brem.dwg  
XREF's: xref-Results; xref-lpswich\_DC08\_MGA

250 0 250 500 750 1000 1250m  
1:25,000

Scale 1:25000 (A3)

**FIGURE F.1.5**

**EXISTING CURRENT - WATER SURFACE LEVELS - SKM ULTIMATE 50 YEAR EVENT (Brem\_E08c)**

Project No.: LJ8714

PRINT DATE: 11 May, 2012 - 3:06pm