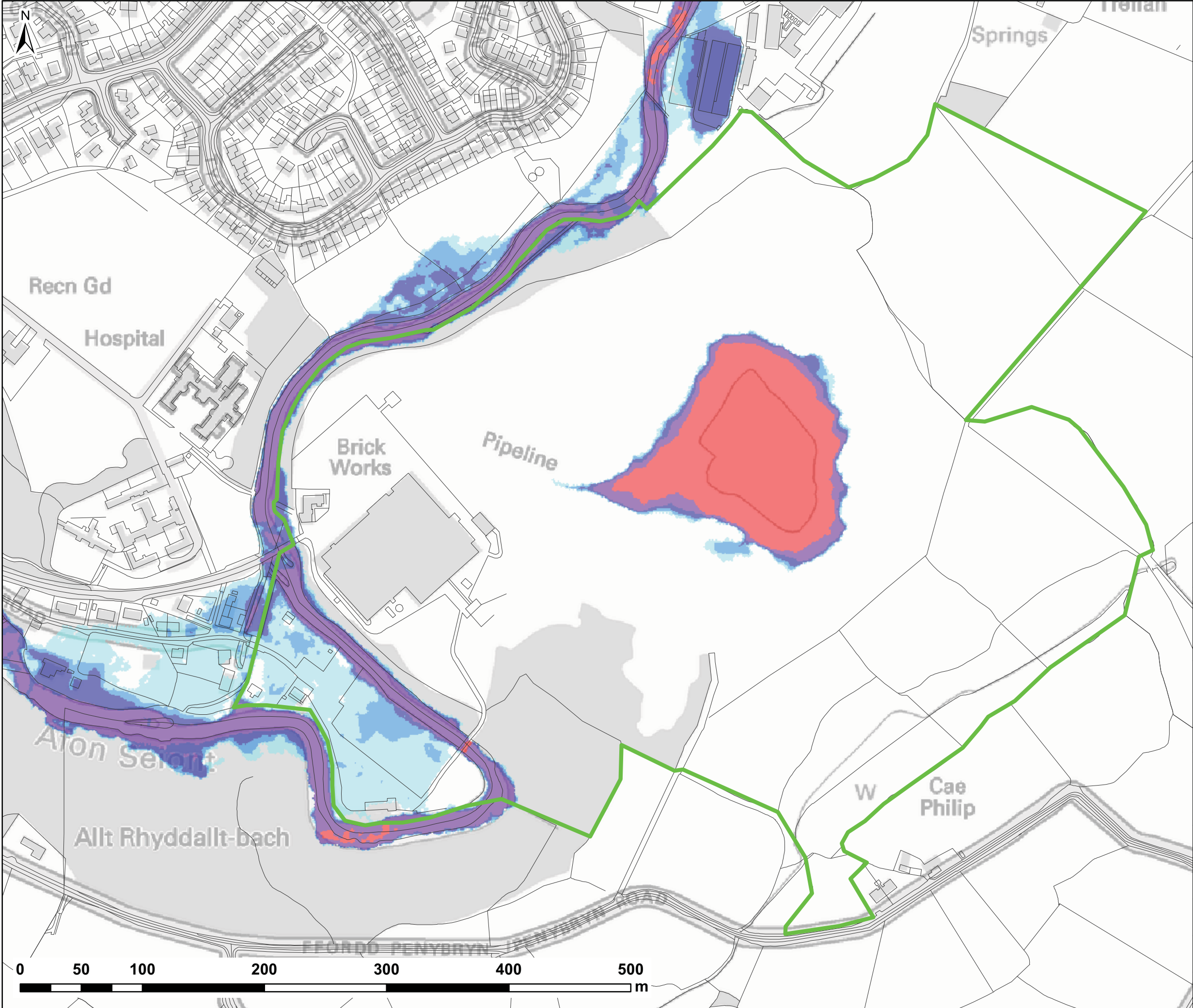


Appendix E – Hydraulic Modelling Results



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Maximum Flood Depth (m)

 0 - 0.3
 0.3 - 0.6
 0.6 - 1.2
 1.2 - 2.4
 > 2.4

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ

01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

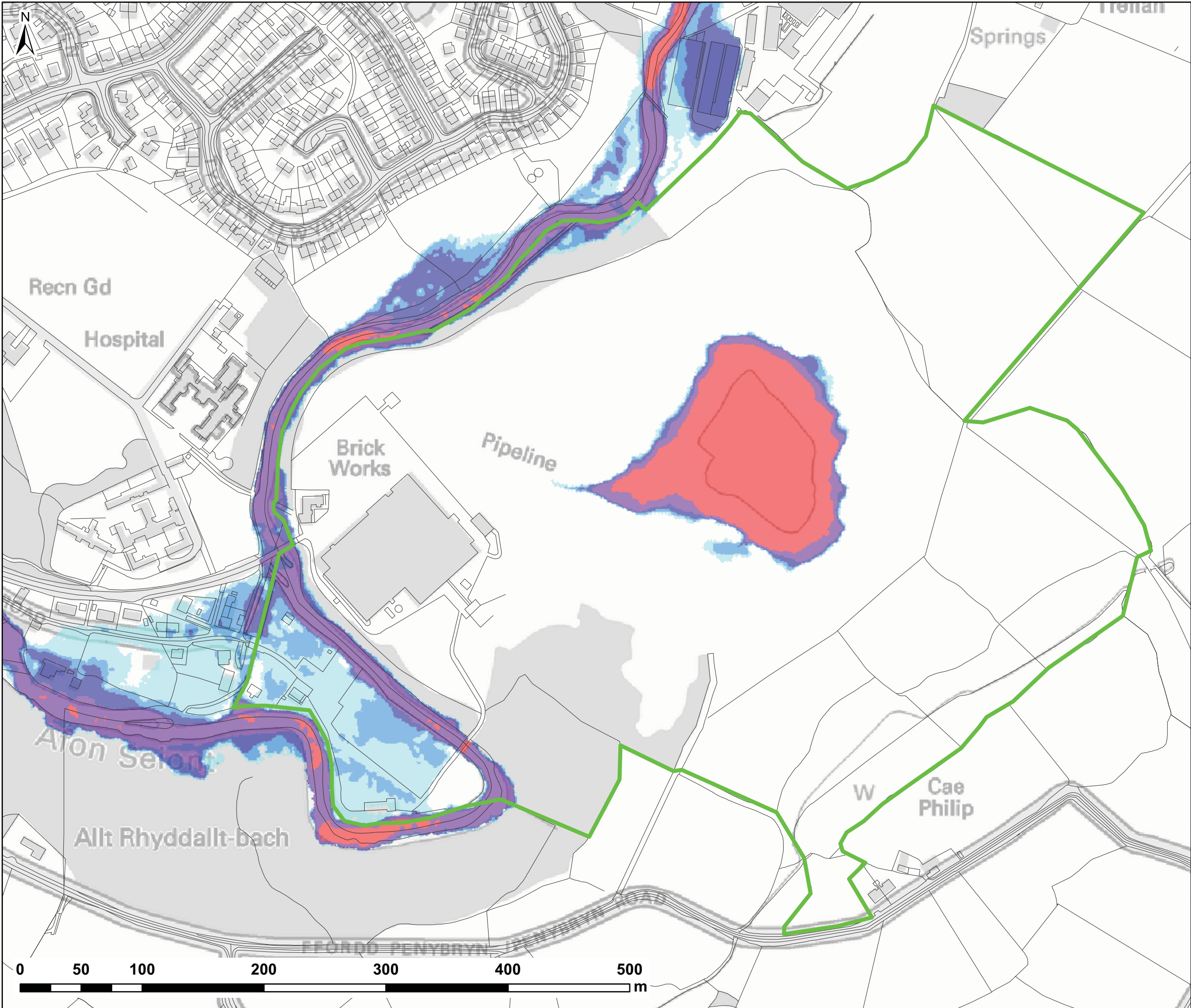
PLOT TITLE:

**MAXIMUM FLOOD DEPTH
5% AEP FLUVIAL EVENT
EXISTING SITE LAYOUT**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
SB	DH	RCL	1:3,000
			(UNLESS STATED OTHERWISE)

PLOT NAME:	REV:
w3191-3-Q20_EXG_D	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Maximum Flood Depth (m)

	0 - 0.3
	0.3 - 0.6
	0.6 - 1.2
	1.2 - 2.4
	> 2.4

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ

01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

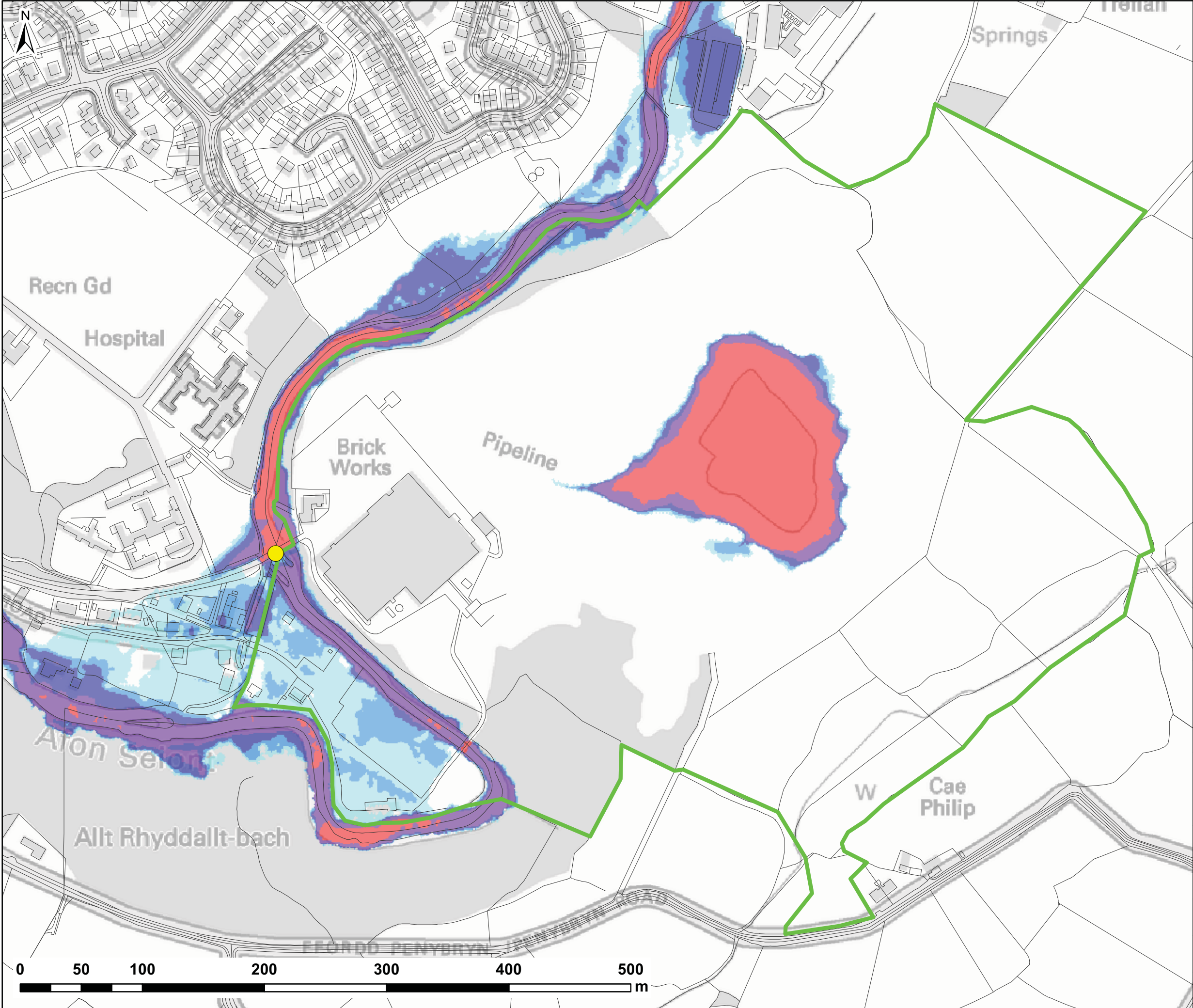
PLOT TITLE:

**MAXIMUM FLOOD DEPTH
1% AEP FLUVIAL EVENT
EXISTING SITE LAYOUT**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
SB	DH	RCL	1:3,000
			(UNLESS STATED OTHERWISE)

PLOT NAME:	REV:
w3191-3-Q100_EXG_D	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Seiont Mill Rd Bridge Blockage (BL1)

Maximum Flood Depth (m)

0 - 0.3

0.3 - 0.6

0.6 - 1.2

1.2 - 2.4

> 2.4

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ

01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

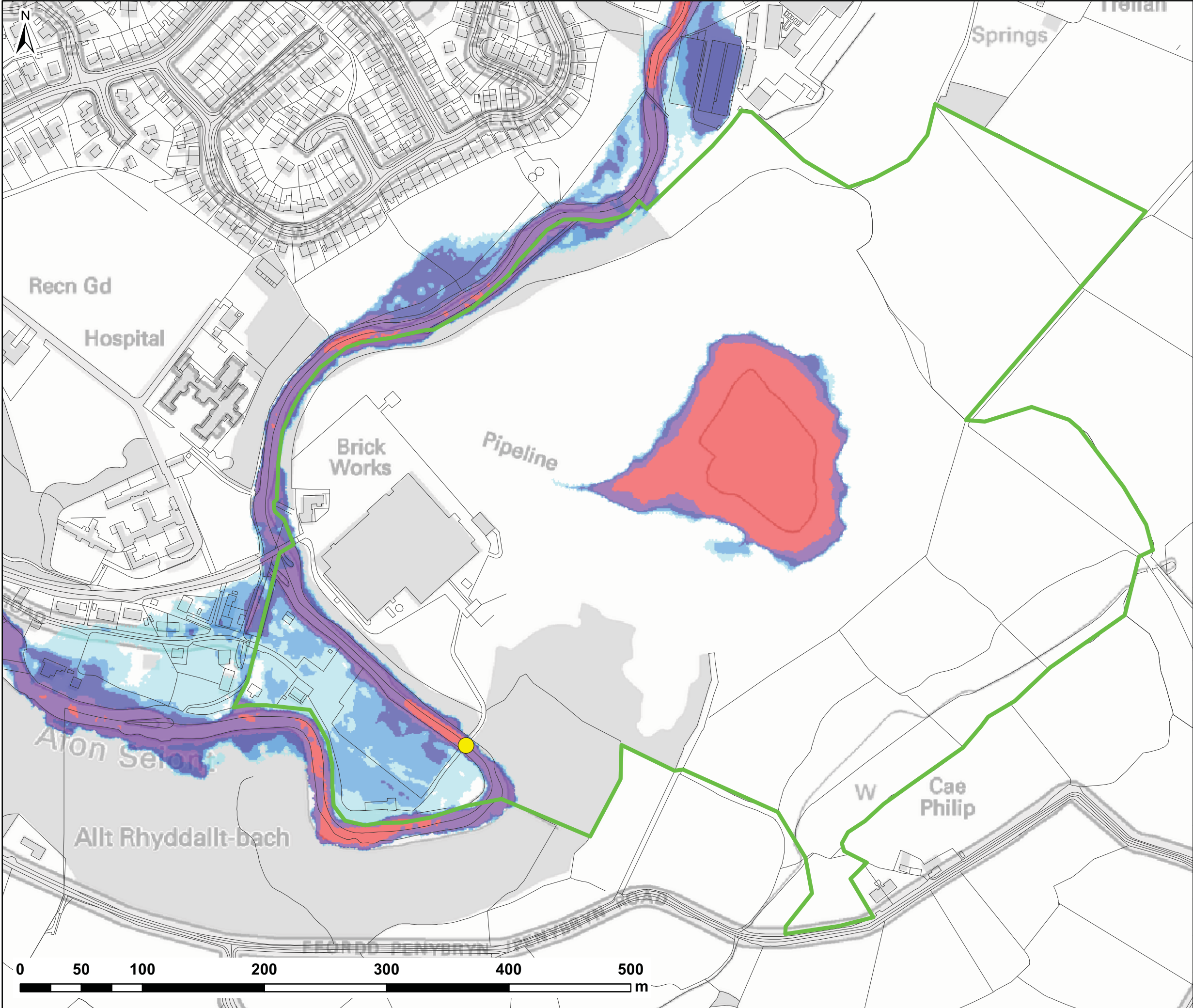
PLOT TITLE:

**MAXIMUM FLOOD DEPTH
1% AEP FLUVIAL EVENT
SEIONT MILL RD BRIDGE 66% BLOCKAGE**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3: 1:3,000 (UNLESS STATED OTHERWISE)
SB	DH	RCL	

PLOT NAME:	REV:
w3191-3-Q100_BL1-66_D	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

- Site Boundary
- Access Rd Bridge Blockage (BL2)

Maximum Flood Depth (m)

- 0 - 0.3
- 0.3 - 0.6
- 0.6 - 1.2
- 1.2 - 2.4
- > 2.4

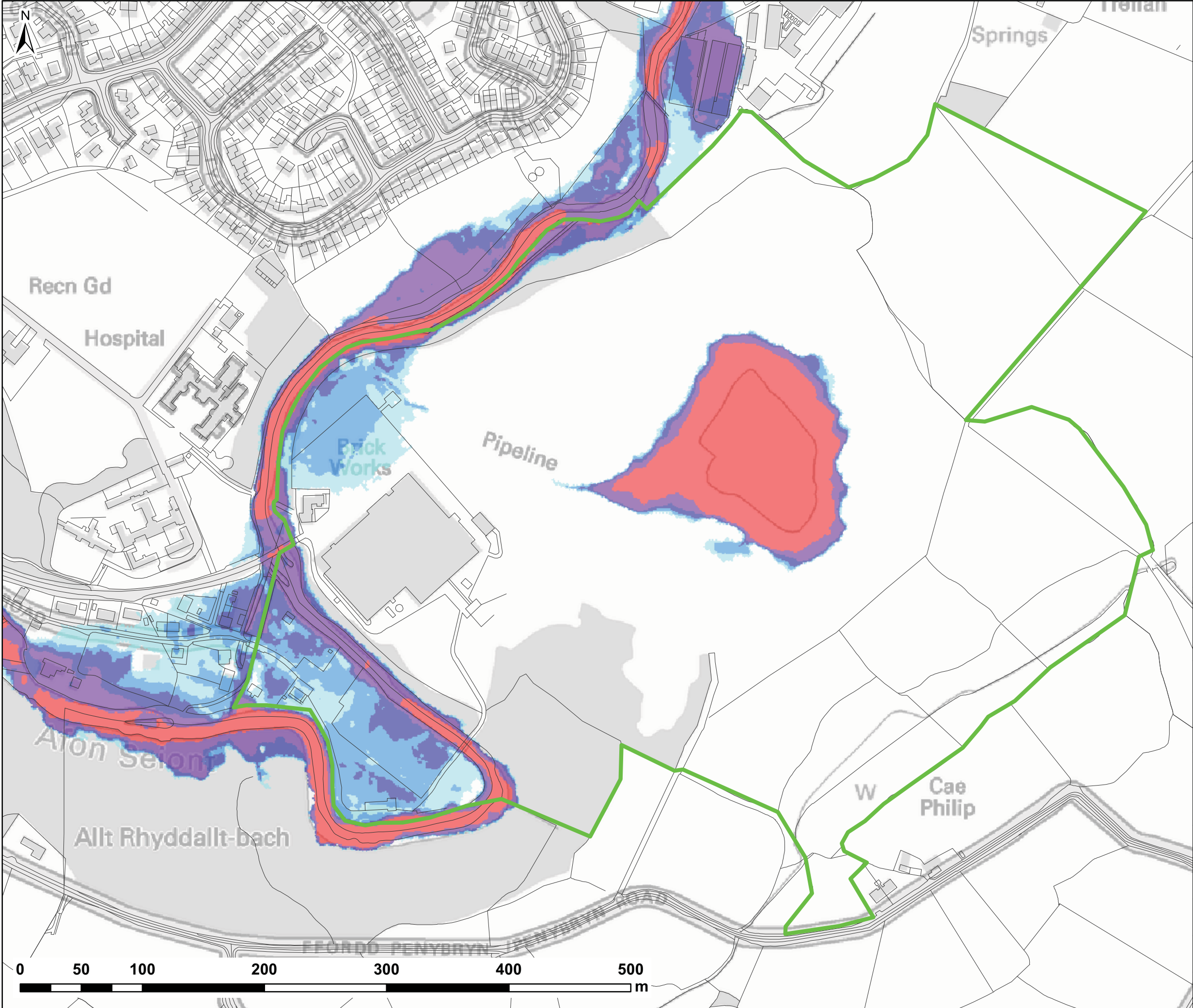
CLIENT:
JONES BROS
CIVIL ENGINEERING UK

waterco consultants
Waterco Ltd
Eden Court, Ruthin, LL15 1NJ
01824 702220
www.waterco.co.uk

SCHEME:
**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

PLOT TITLE:
**MAXIMUM FLOOD DEPTH
1% AEP FLUVIAL EVENT
ACCESS RD BRIDGE 66% BLOCKAGE**

PLOT STATUS: FINAL			DATE: 08/04/2016
DRAWN: SB	CHECKED: DH	APPROVED: RCL	PLOT SCALE @ A3: 1:3,000 (UNLESS STATED OTHERWISE)
PLOT NAME: w3191-3-Q100_BL2-66_D			REV: C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Maximum Flood Depth (m)

0 - 0.3

0.3 - 0.6

0.6 - 1.2

1.2 - 2.4

> 2.4

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ

01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

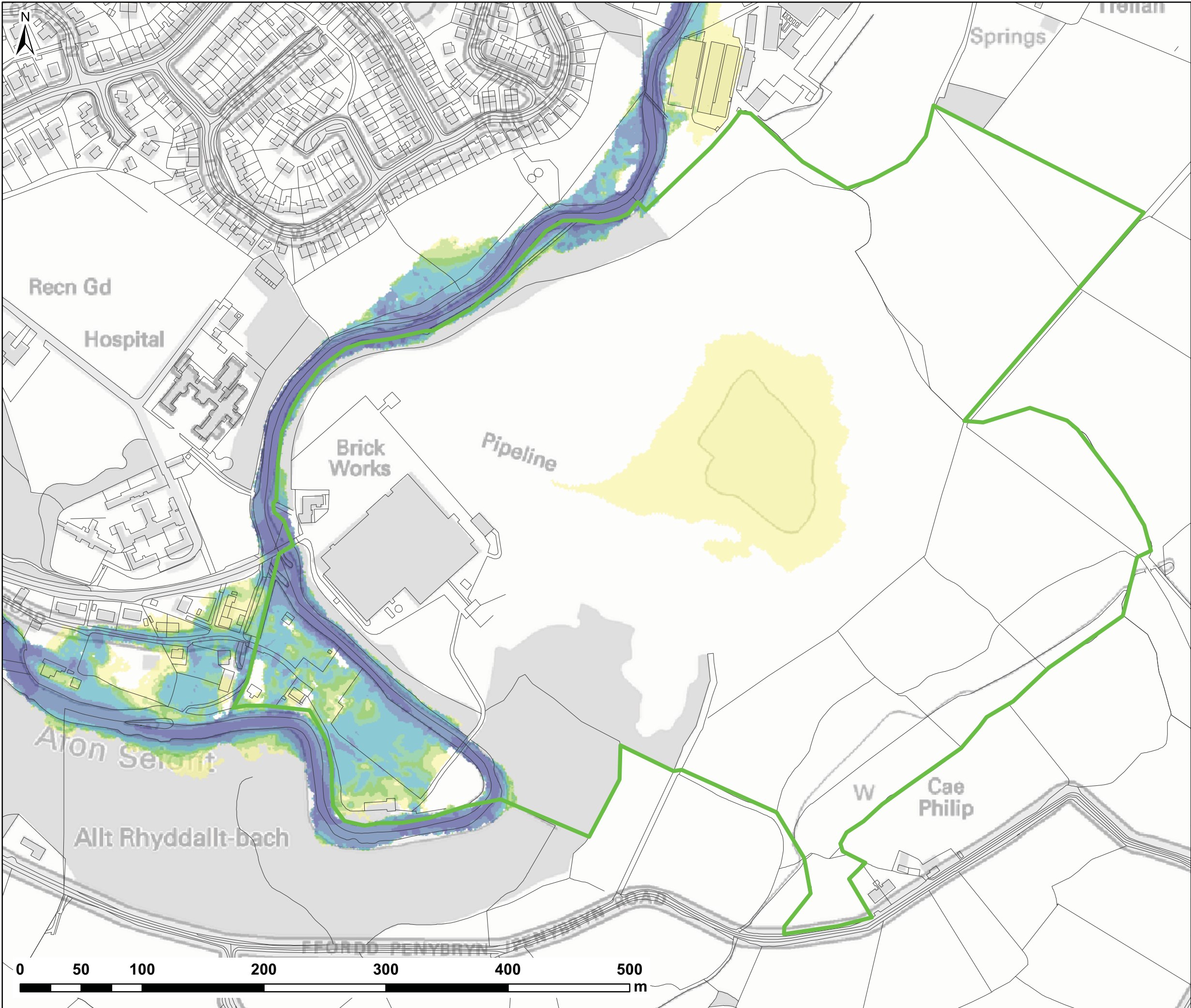
PLOT TITLE:

**MAXIMUM FLOOD DEPTH
0.1% AEP FLUVIAL EVENT
EXISTING SITE LAYOUT**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
SB	DH	RCL	1:3,000
			(UNLESS STATED OTHERWISE)

PLOT NAME:	REV:
w3191-3-Q1000_EXG_D	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Maximum Velocity (m/s)

	0 - 0.15
	0.15 - 0.3
	0.3 - 0.45
	0.45 - 0.6
	0.6 - 1.2
	1.2 - 2.4
	> 2.4

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ

01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

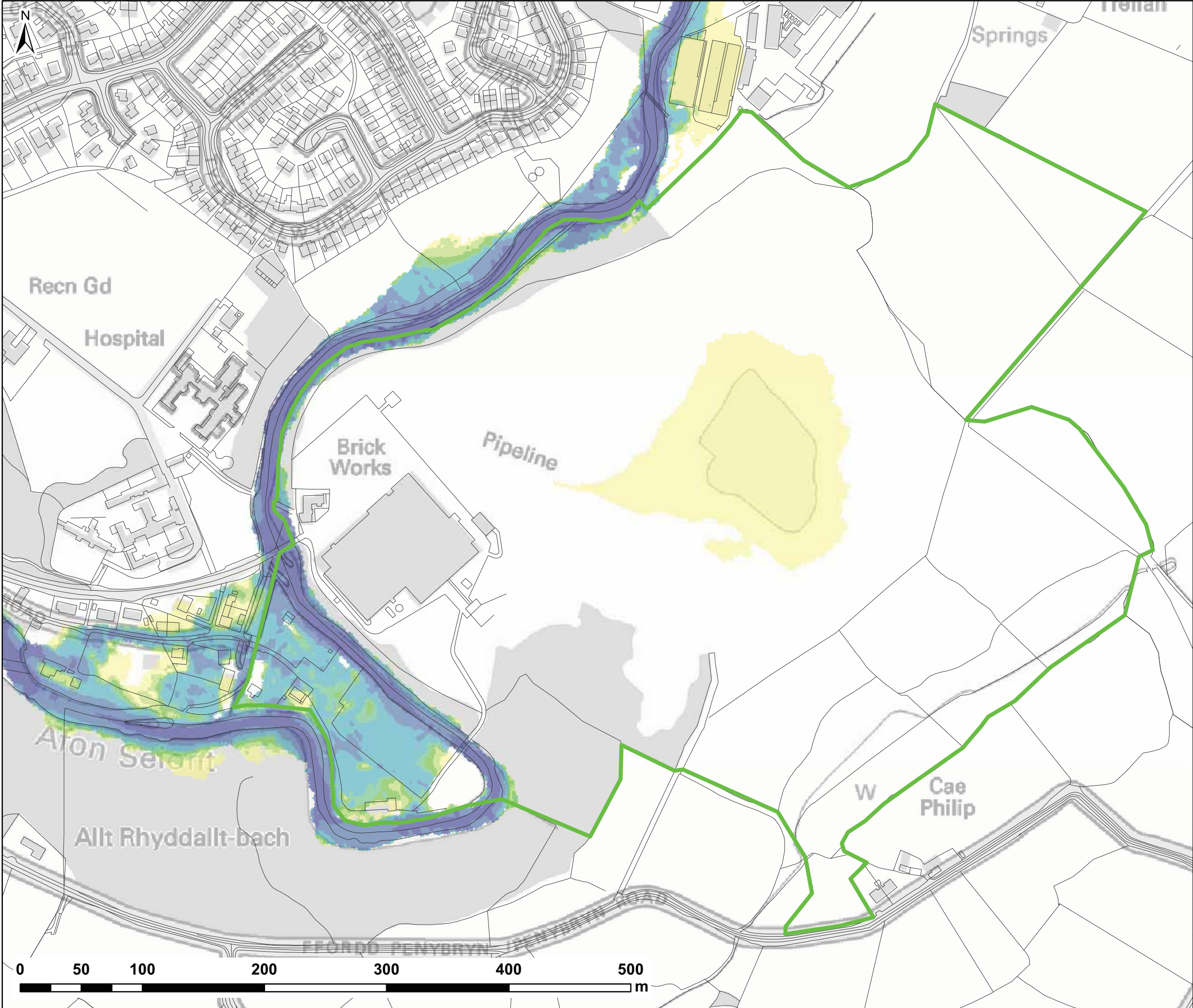
PLOT TITLE:

**MAXIMUM VELOCITY
5% AEP FLUVIAL EVENT
EXISTING SITE LAYOUT**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
SB	DH	RCL	1:3,000
			(UNLESS STATED OTHERWISE)

PLOT NAME:	REV:
w3191-3-Q20_EXG_V	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Maximum Velocity (m/s)

	0 - 0.15
	0.15 - 0.3
	0.3 - 0.45
	0.45 - 0.6
	0.6 - 1.2
	1.2 - 2.4
	> 2.4

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ
01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

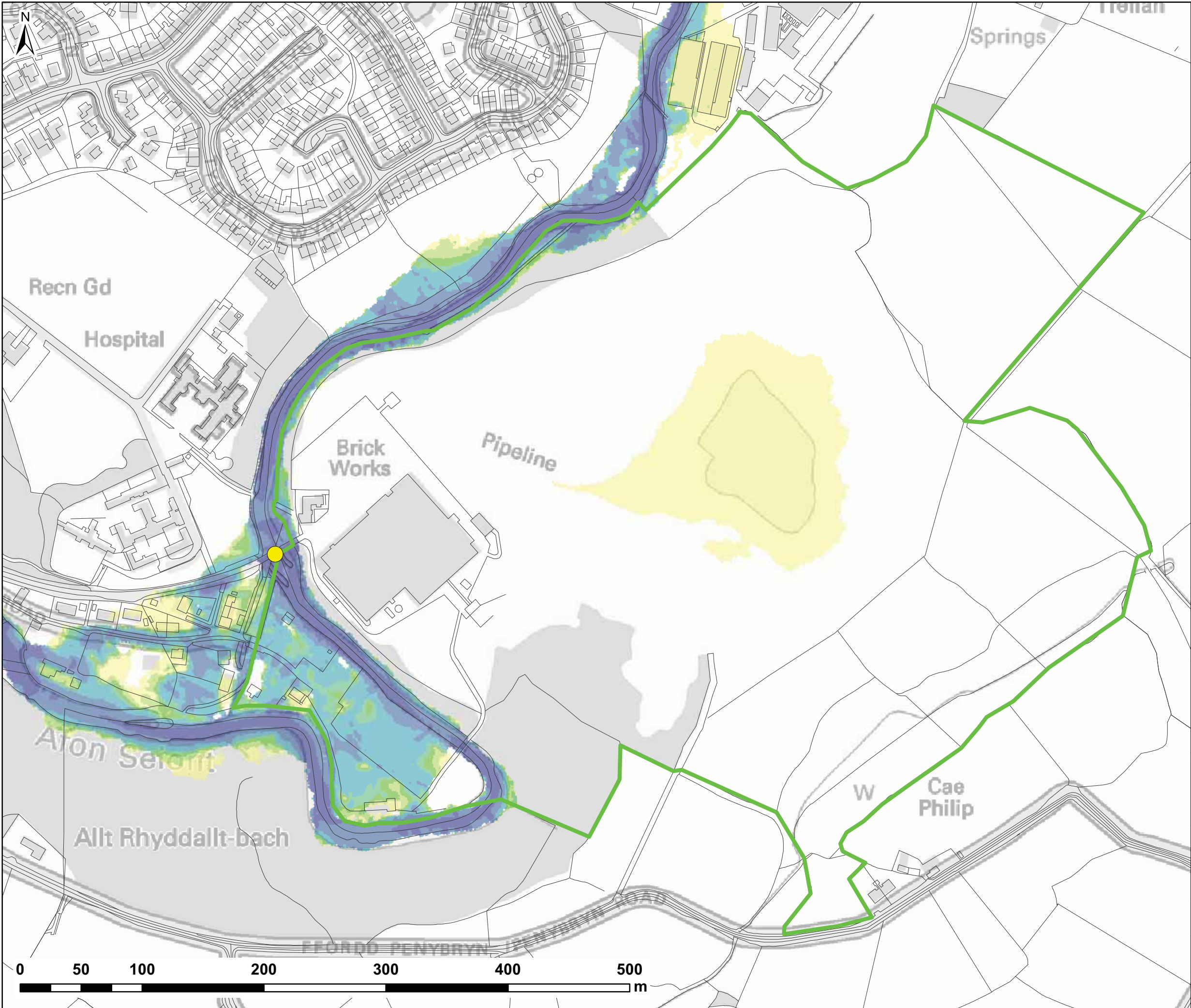
PLOT TITLE:

**MAXIMUM VELOCITY
1% AEP FLUVIAL EVENT
EXISTING SITE LAYOUT**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
SB	DH	RCL	1:3,000
			(UNLESS STATED OTHERWISE)

PLOT NAME:	REV:
w3191-3-Q100_EXG_V	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Seiont Mill Rd Bridge Blockage (BL1)

Maximum Velocity (m/s)

0 - 0.15

0.15 - 0.3

0.3 - 0.45

0.45 - 0.6

0.6 - 1.2

1.2 - 2.4

> 2.4

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ

01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

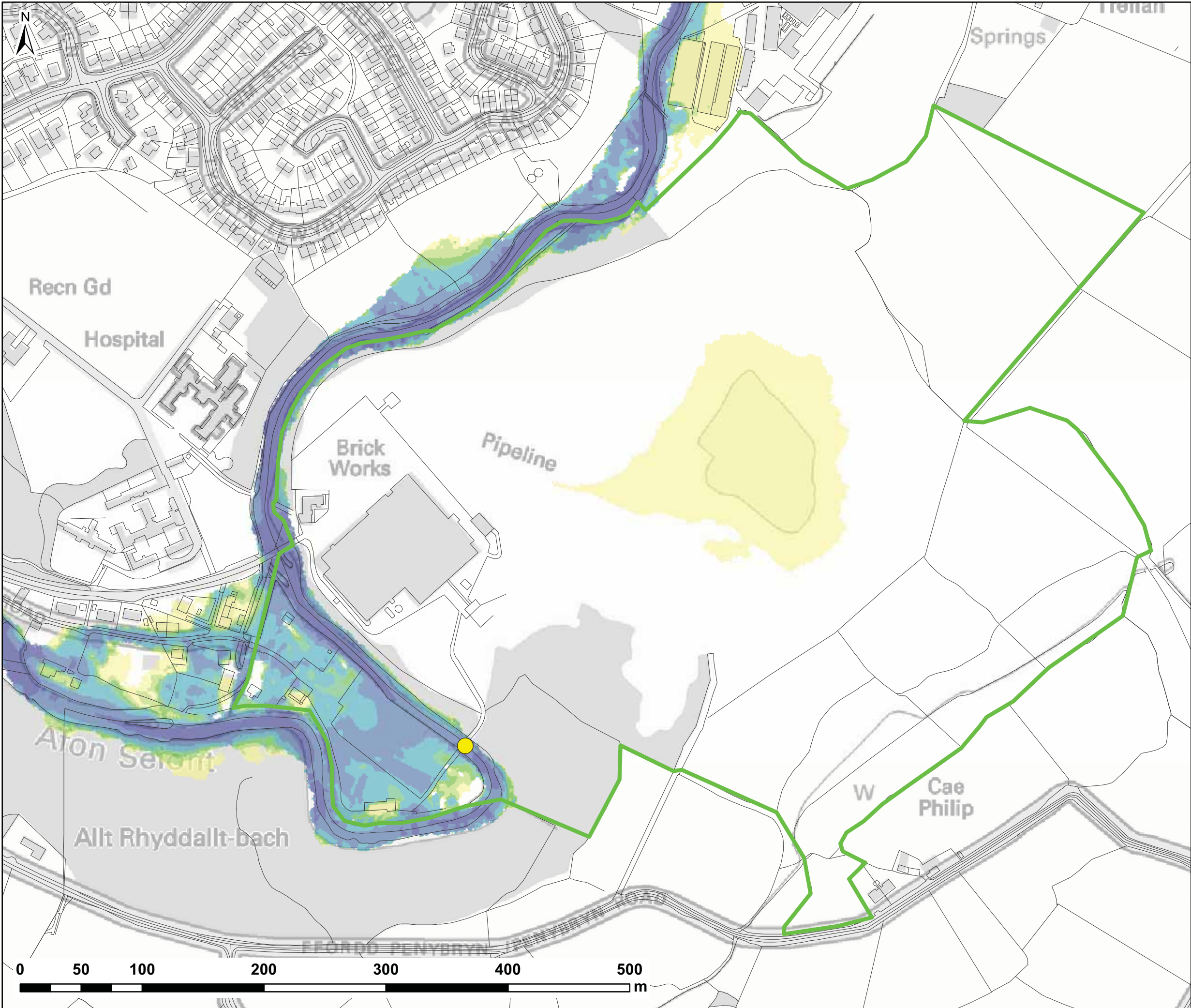
PLOT TITLE:

**MAXIMUM VELOCITY
1% AEP FLUVIAL EVENT
SEIONT MILL RD BRIDGE 66% BLOCKAGE**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
SB	DH	RCL	1:3,000
			(UNLESS STATED OTHERWISE)

PLOT NAME:	REV:
w3191-3-Q100_BL1-66_V	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Access Rd Bridge Blockage (BL2)

Maximum Velocity (m/s)

0 - 0.15

0.15 - 0.3

0.3 - 0.45

0.45 - 0.6

0.6 - 1.2

1.2 - 2.4

> 2.4

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ
01824 702220
www.waterco.co.uk

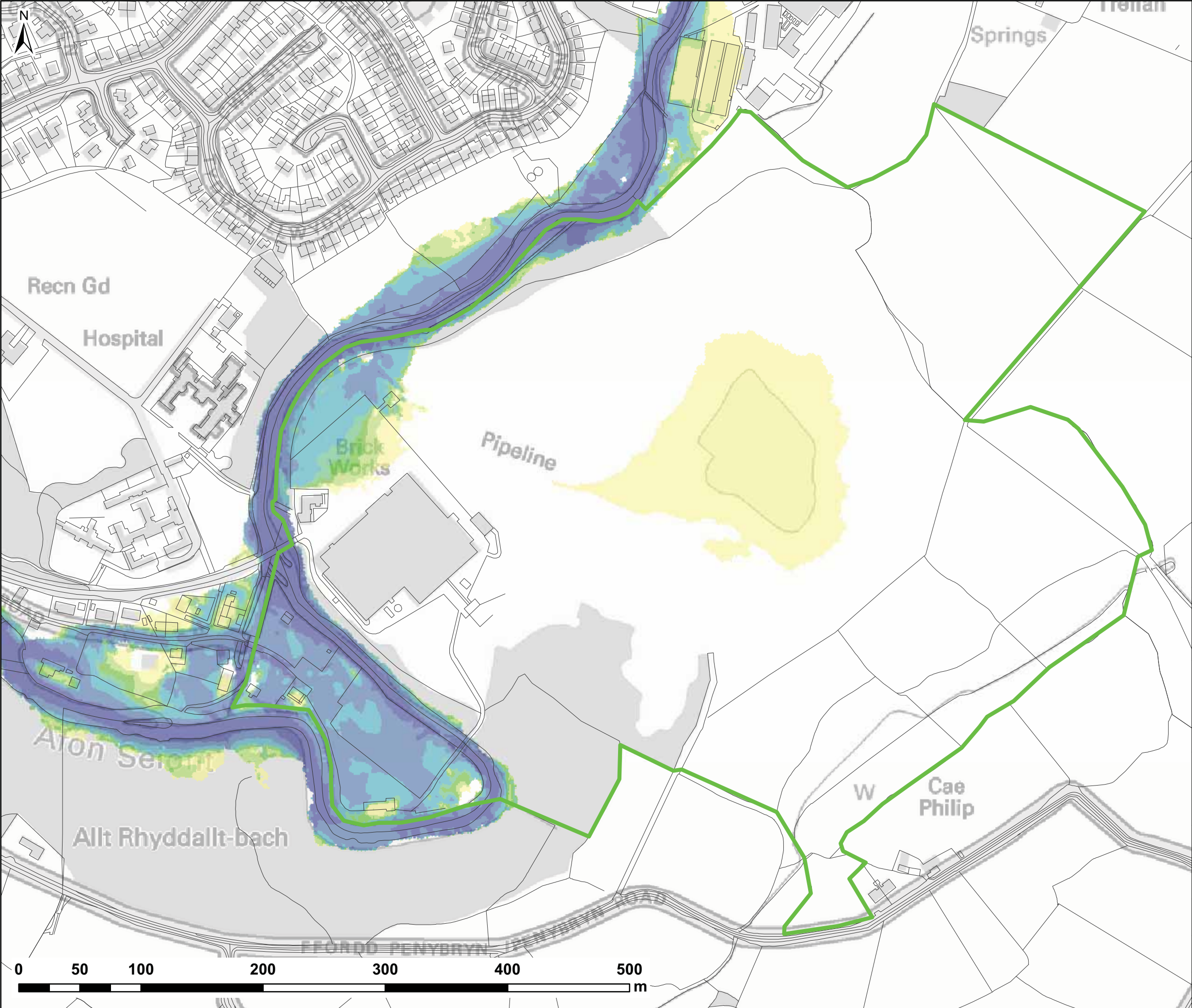
SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

PLOT TITLE:

**MAXIMUM VELOCITY
1% AEP FLUVIAL EVENT
ACCESS RD BRIDGE 66% BLOCKAGE**

PLOT STATUS:			DATE:
FINAL			08/04/2016
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3: 1:3,000 (UNLESS STATED OTHERWISE)
SB	DH	RCL	
PLOT NAME:			REV:
w3191-3-Q100_BL2-66_V			C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Maximum Velocity (m/s)

- 0 - 0.15
- 0.15 - 0.3
- 0.3 - 0.45
- 0.45 - 0.6
- 0.6 - 1.2
- 1.2 - 2.4
- > 2.4

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ
01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

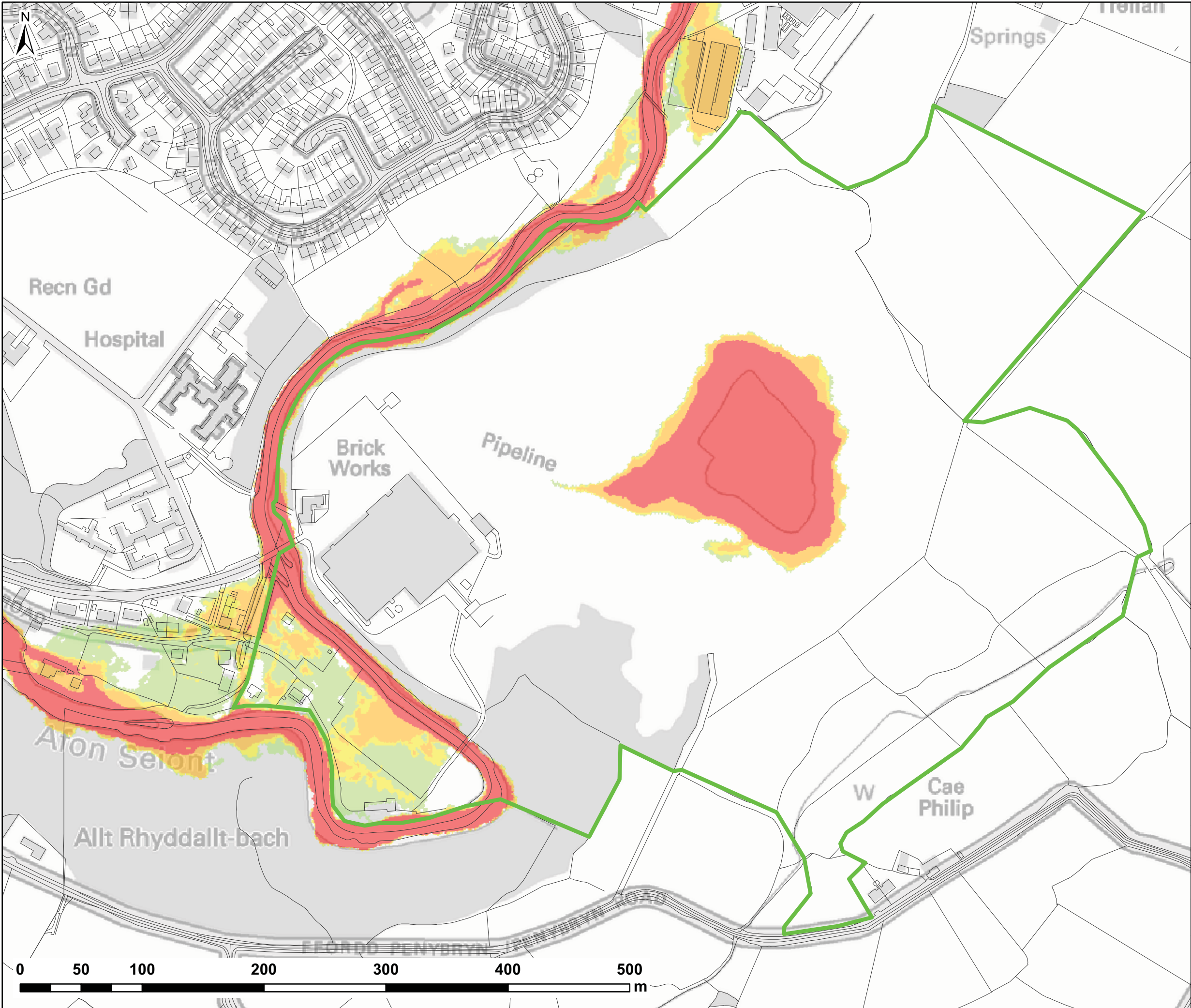
PLOT TITLE:

**MAXIMUM VELOCITY
0.1% AEP FLUVIAL EVENT
EXISTING SITE LAYOUT**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
SB	DH	RCL	1:3,000
			(UNLESS STATED OTHERWISE)

PLOT NAME:	REV:
w3191-3-Q1000_EXG_V	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Maximum Flood Hazard Rating (FD2320)

< 0.75 (Caution)

0.75 - 1.25 (Danger for Some)

1.25 - 2 (Danger for Most)

> 2.0 (Danger for All)

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ

01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

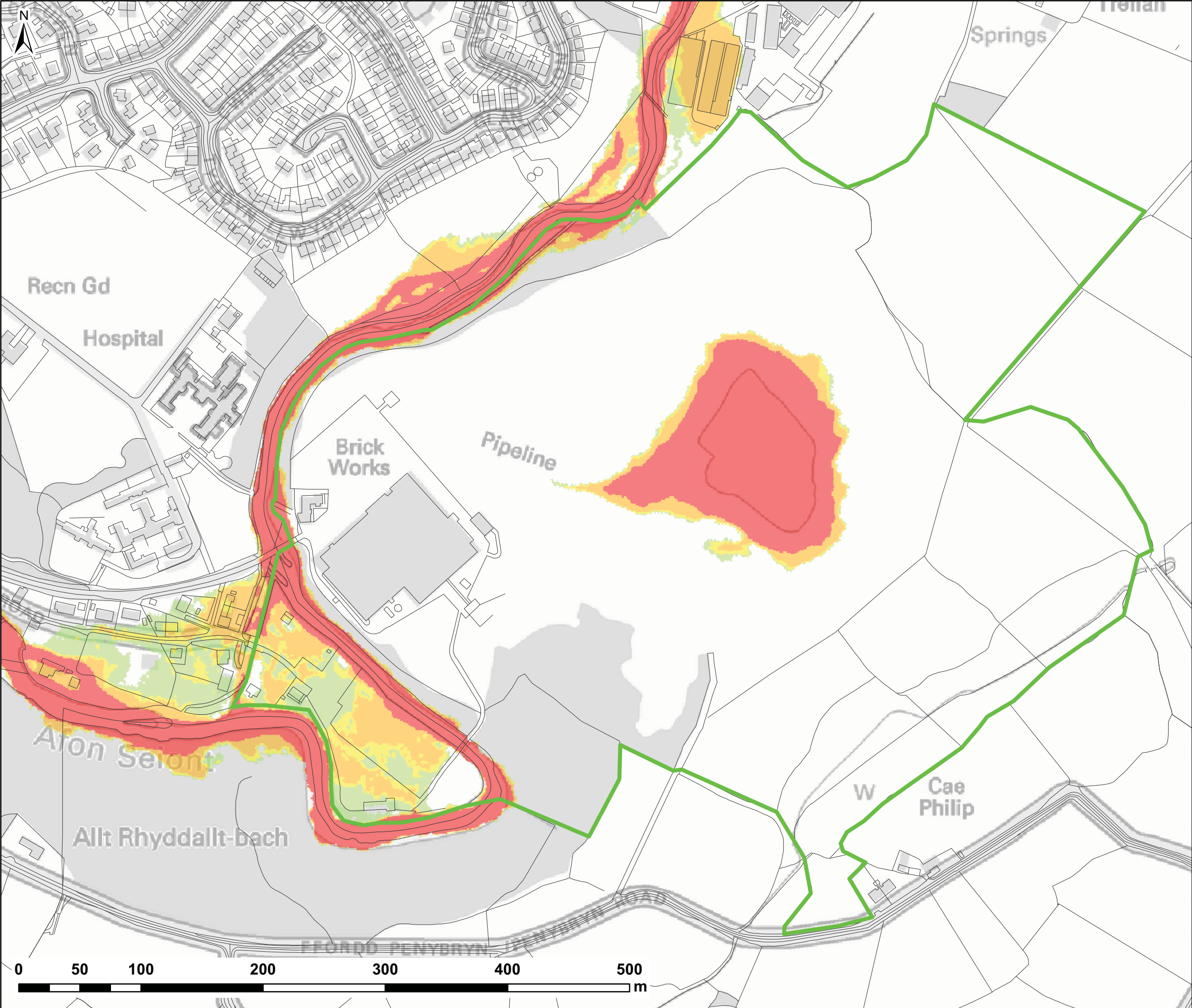
PLOT TITLE:

**FLOOD HAZARD RATING
5% AEP FLUVIAL EVENT
EXISTING SITE LAYOUT**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3: 1:3,000 (UNLESS STATED OTHERWISE)
SB	DH	RCL	

PLOT NAME:	REV:
w3191-3-Q20_EXG_H	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Maximum Flood Hazard Rating (FD2320)

< 0.75 (Caution)

0.75 - 1.25 (Danger for Some)

1.25 - 2 (Danger for Most)

> 2.0 (Danger for All)

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ
01824 702220
www.waterco.co.uk

SCHEME:

SEIONT BRICKWORKS
CAERNARFON, GWYNEDD

PLOT TITLE:

FLOOD HAZARD RATING
1% AEP FLUVIAL EVENT
EXISTING SITE LAYOUT

PLOT STATUS:

FINAL

DATE:

08/04/2016

DRAWN:

SB

CHECKED:

DH

APPROVED:

RCL

PLOT SCALE @ A3:

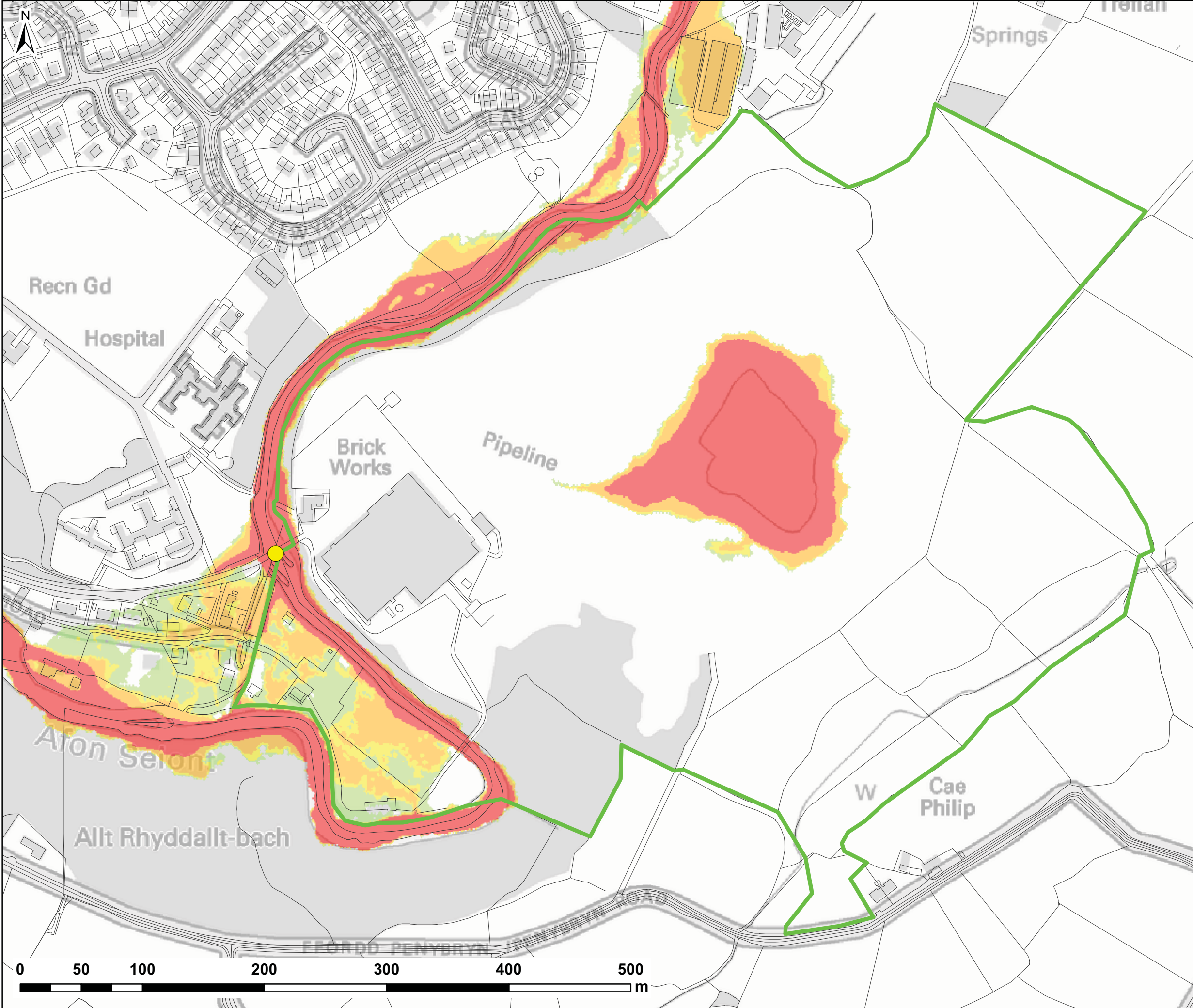
1:3,000
(UNLESS STATED OTHERWISE)

PLOT NAME:

w3191-3-Q100_EXG_H

REV:

C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

- Site Boundary
- Seiont Mill Rd Bridge Blockage (BL1)

Maximum Flood Hazard Rating (FD2320)

- < 0.75 (Caution)
- 0.75 - 1.25 (Danger for Some)
- 1.25 - 2 (Danger for Most)
- > 2.0 (Danger for All)

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ

01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

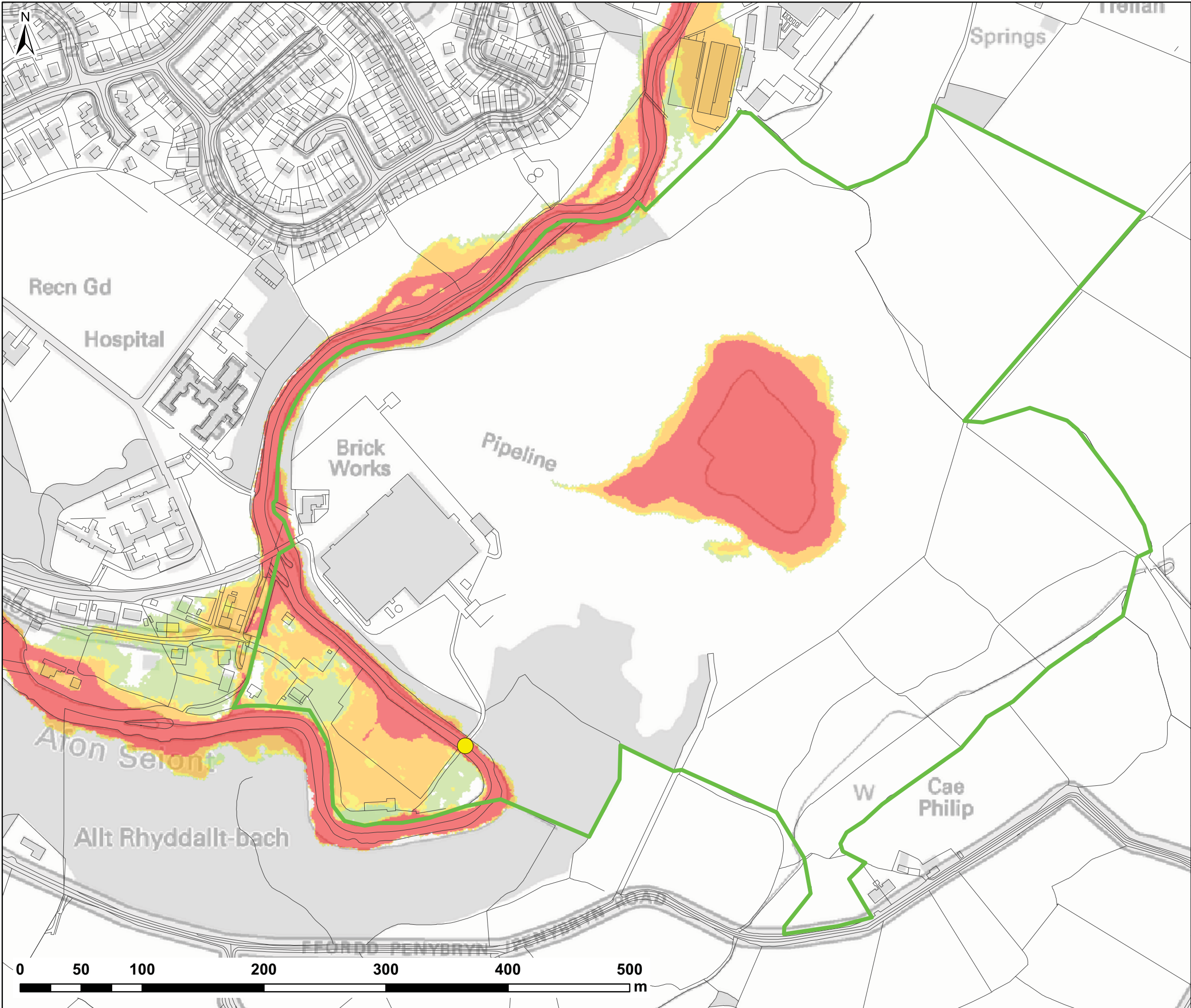
PLOT TITLE:

**FLOOD HAZARD RATING
1% AEP FLUVIAL EVENT
SEIONT MILL RD BRIDGE 66% BLOCKAGE**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
SB	DH	RCL	1:3,000
			(UNLESS STATED OTHERWISE)

PLOT NAME:	REV:
w3191-3-Q100_BL1-66_H	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

- Site Boundary
- Access Rd Bridge Blockage (BL2)
- Maximum Flood Hazard Rating (FD2320)**
 - < 0.75 (Caution)
 - 0.75 - 1.25 (Danger for Some)
 - 1.25 - 2 (Danger for Most)
 - > 2.0 (Danger for All)

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ
01824 702220
www.waterco.co.uk

SCHEME:

**SEIONT BRICKWORKS
CAERNARFON, GWYNEDD**

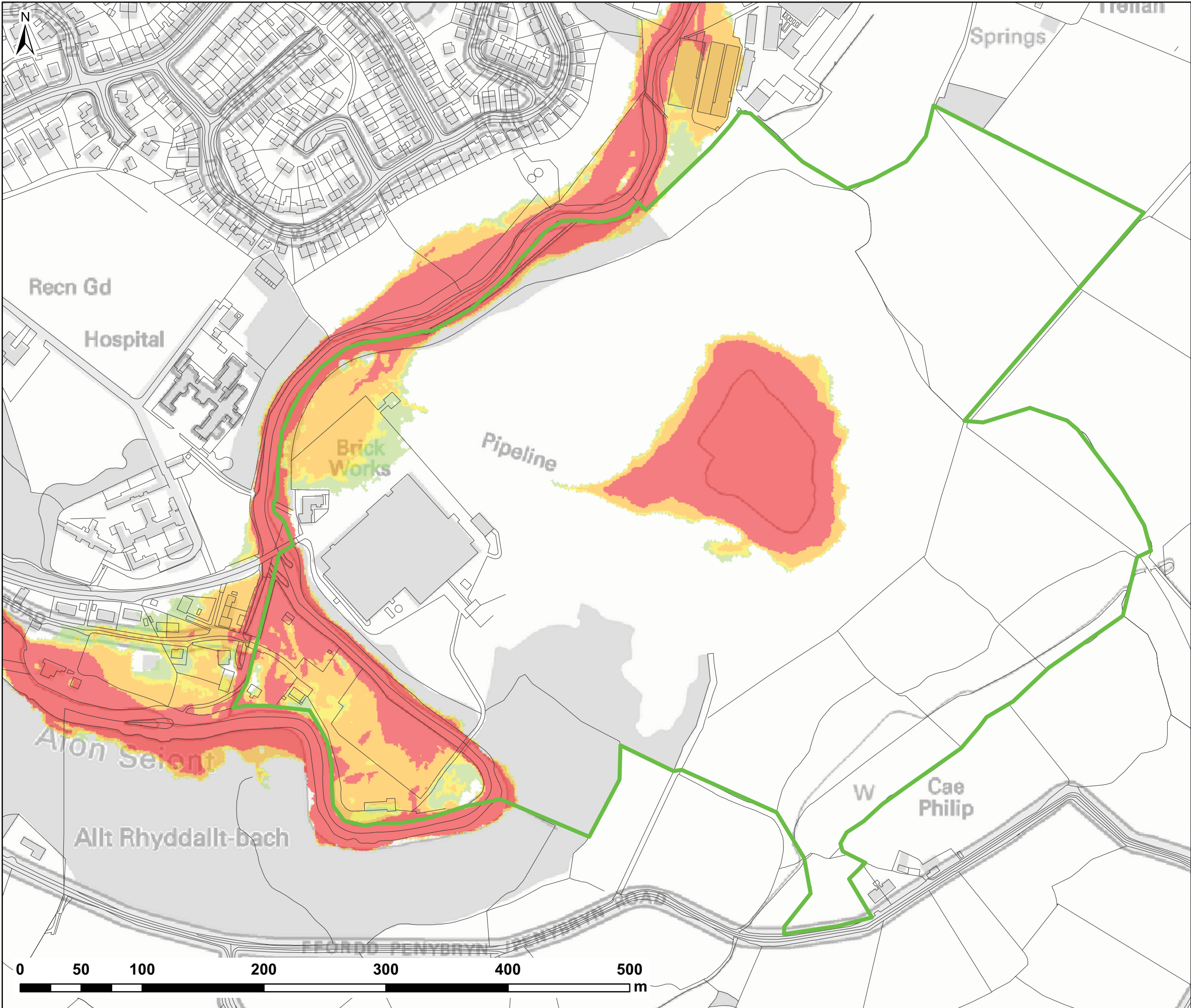
PLOT TITLE:

**FLOOD HAZARD RATING
1% AEP FLUVIAL EVENT
ACCESS RD BRIDGE 66% BLOCKAGE**

PLOT STATUS:			DATE:
FINAL			08/04/2016

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3: 1:3,000 (UNLESS STATED OTHERWISE)
SB	DH	RCL	

PLOT NAME:	REV:
w3191-3-Q100_BL2-66_H	C



NOTES:
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

LEGEND

Site Boundary

Maximum Flood Hazard Rating (FD2320)

< 0.75 (Caution)

0.75 - 1.25 (Danger for Some)

1.25 - 2 (Danger for Most)

> 2.0 (Danger for All)

CLIENT:

Waterco Ltd
Eden Court, Ruthin, LL15 1NJ
01824 702220
www.waterco.co.uk

SCHEME:

SEIONT BRICKWORKS
CAERNARFON, GWYNEDD

PLOT TITLE:

FLOOD HAZARD RATING
0.1% AEP FLUVIAL EVENT
EXISTING SITE LAYOUT

PLOT STATUS:

FINAL

DATE:

08/04/2016

DRAWN:

SB

CHECKED:

DH

APPROVED:

RCL

PLOT SCALE @ A3:

1:3,000
(UNLESS STATED OTHERWISE)

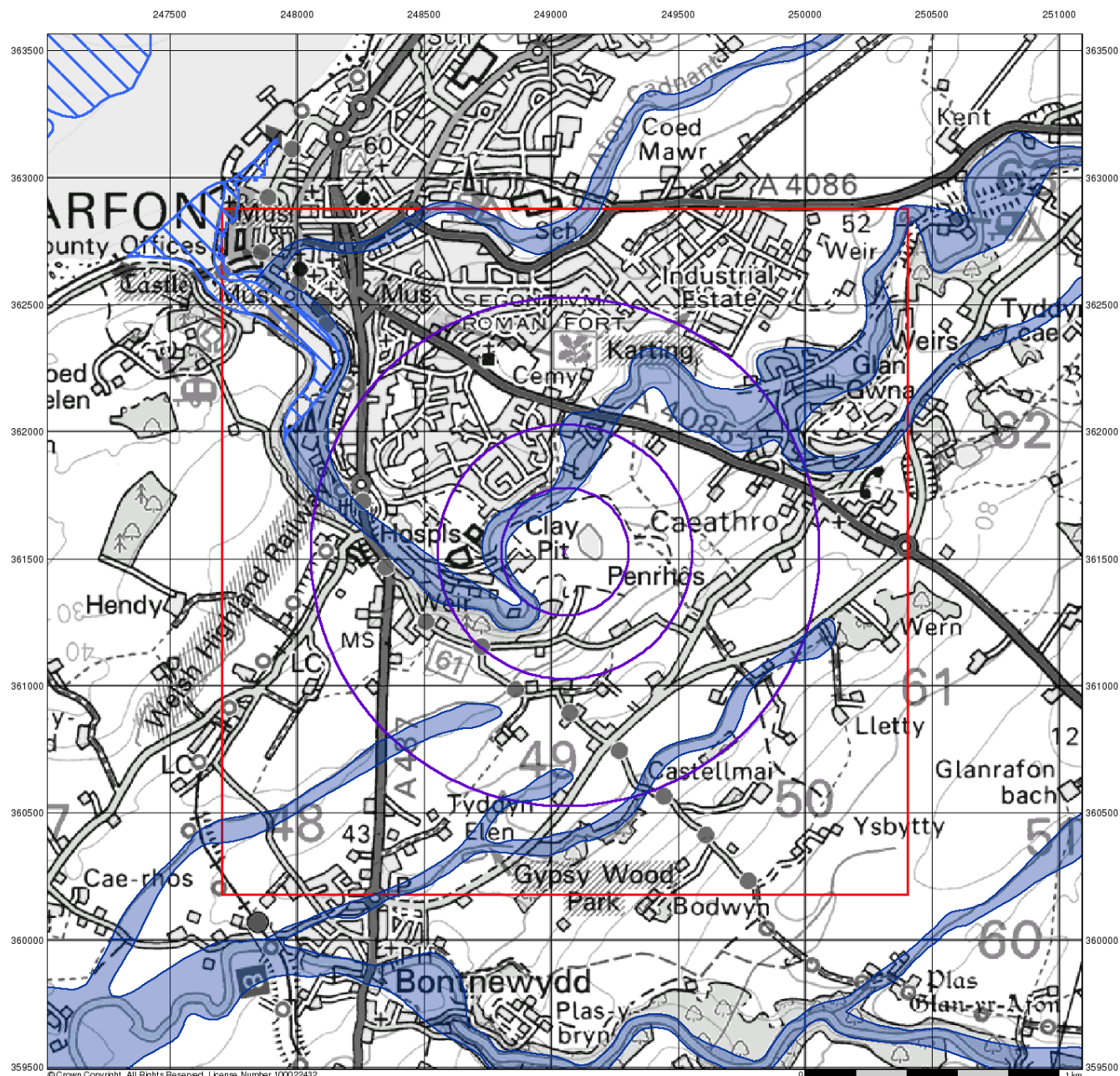
PLOT NAME:

w3191-3-Q1000_EXG_H

REV:

C

Appendix F – Envirocheck Flood Report



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BGS Flood Data (1:50,000)

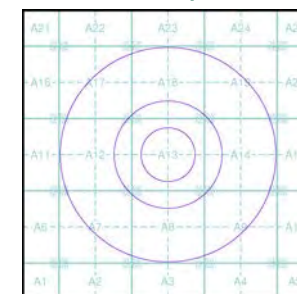
General

- ◇ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

BGS Geological Indicators of Flooding

- ▨ Coastal
- Inland
- Bodies of Water

BGS Flood Data Map - Slice A



Order Details

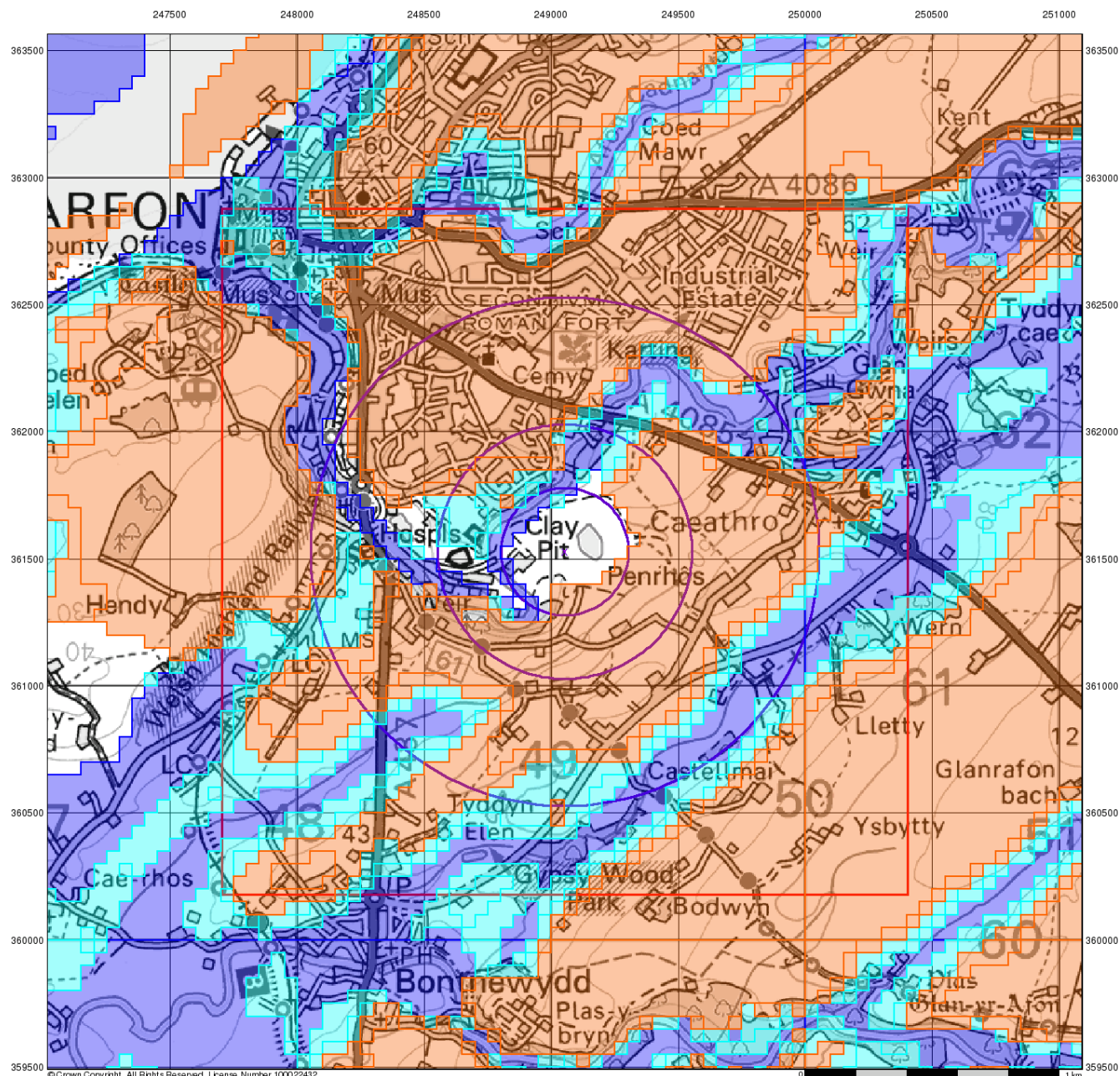
Order Number: 72123031_1_1
 Customer Ref: w1910-150904
 National Grid Reference: 249050, 361530
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details

Seiont Works, Seiont Mill Road, CAERNARFON, Gwynedd, LL55 2YL



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



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BGS Flood Data (1:50,000)

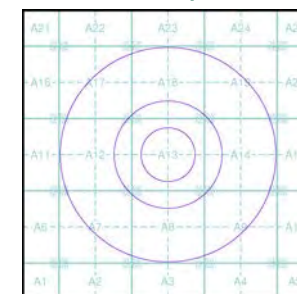
General

- ◇ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

BGS Groundwater Flooding Susceptibility

- Potential for Groundwater Flooding to Occur at Surface
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Limited Potential for Groundwater Flooding to Occur

BGS Flood Data Map - Slice A



Order Details

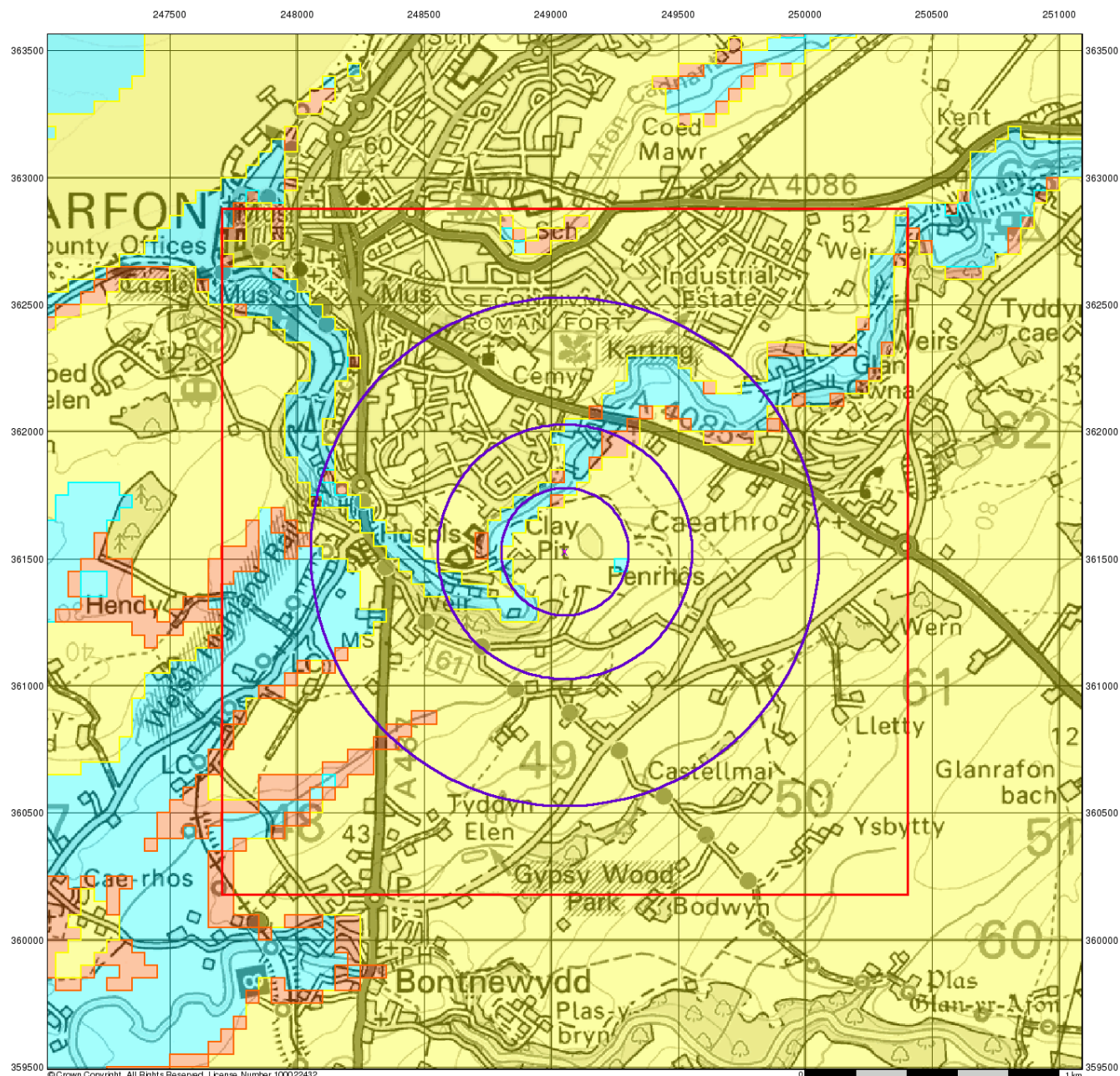
Order Number: 72123031_1_1
 Customer Ref: w1910-150904
 National Grid Reference: 249050, 361530
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details

Seiont Works, Seiont Mill Road, CAERNARFON, Gwynedd, LL55 2YL



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



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ESI Groundwater Flood Map (1:50,000)

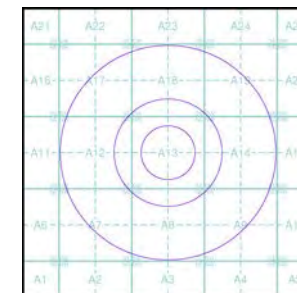
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

ESI Groundwater Flooding Risk

- High Risk
- Moderate Risk
- Low Risk
- Negligible Risk

ESI Groundwater Flood Map - Slice A



Order Details

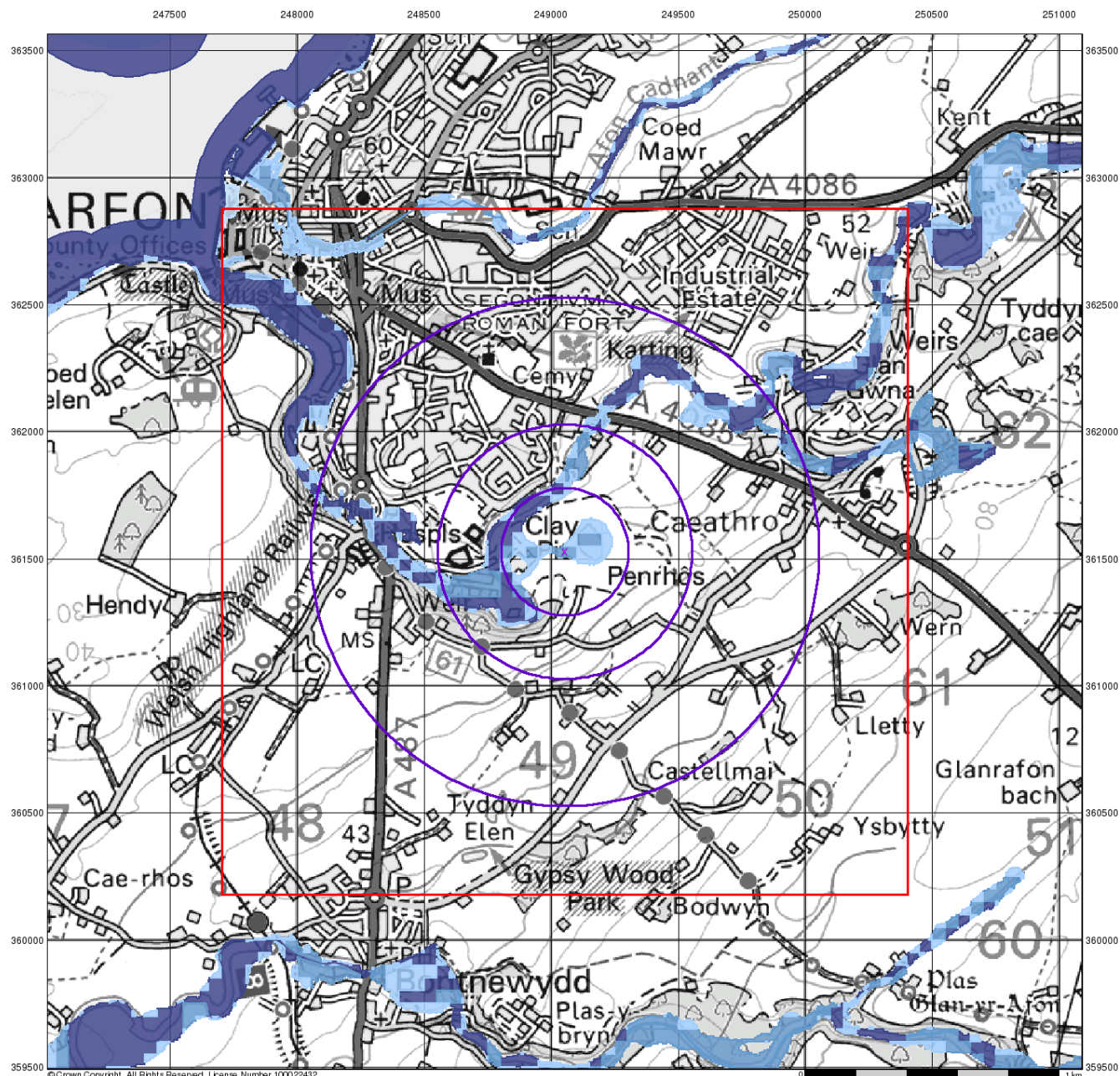
Order Number: 72123031_1.1
 Customer Ref: w1910-150904
 National Grid Reference: 249050, 361530
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details

Seiont Works, Seiont Mill Road, CAERNARFON, Gwynedd, LL55 2YL



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



EA/NRW RoFRS Data (1:50,000)

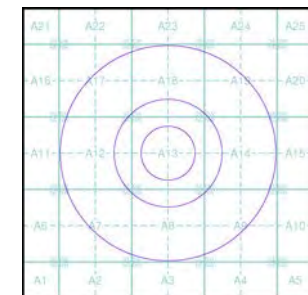
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Risk of Flooding from Rivers and Sea (RoFRS)

- High Risk
- Medium Risk
- Low Risk
- Very Low Risk

EA/NRW RoFRS Data Map - Slice A



Order Details

Order Number: 72123031_1_1
 Customer Ref: w1910-150904
 National Grid Reference: 249050, 361530
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details

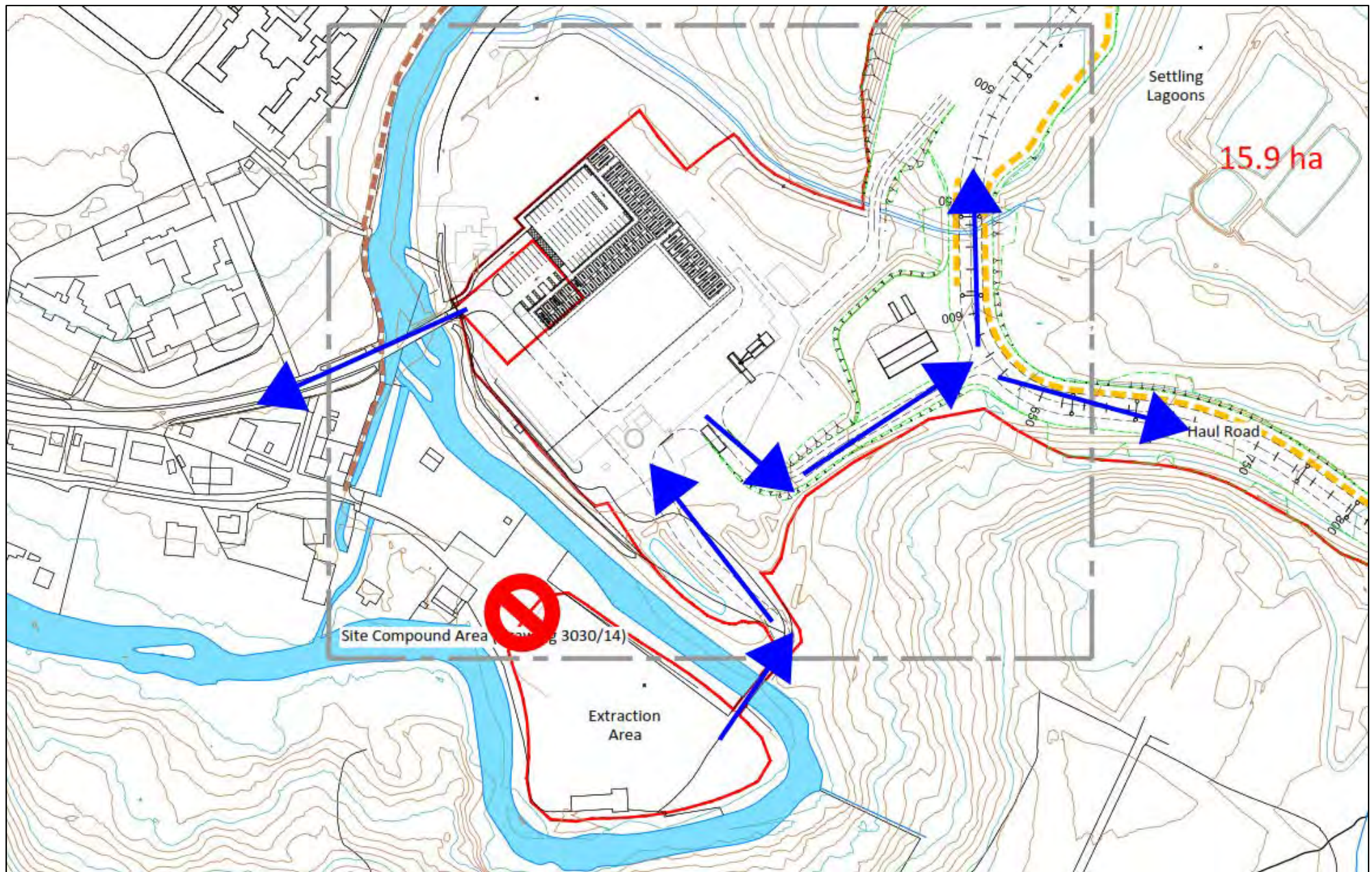
Seiont Works, Seiont Mill Road, CAERNARFON, Gwynedd, LL55 2YL



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Appendix G – Evacuation Route Plan

Evacuation Route Plan



Evacuation Route



Route not to be used during
times of flood