Figure Ref	Wetspot
8.3	Bin Brook
8.4	Vicar‘s Brook / Hobson‘s Conduit
8.5	Cherry Hinton
8.6	Cherry Hinton Village
8.7	Coldham‘s Common
8.8	Milton Village
8.9	North Chesterton
8.10	South Chesterton
8.11	Castle School
8.12	King‘s Hedges and Arbury
8.13	Cambridge City Centre

Table 8.1 Stage 2 Wetspots for Cambridge and Milton and their associated figure numbers

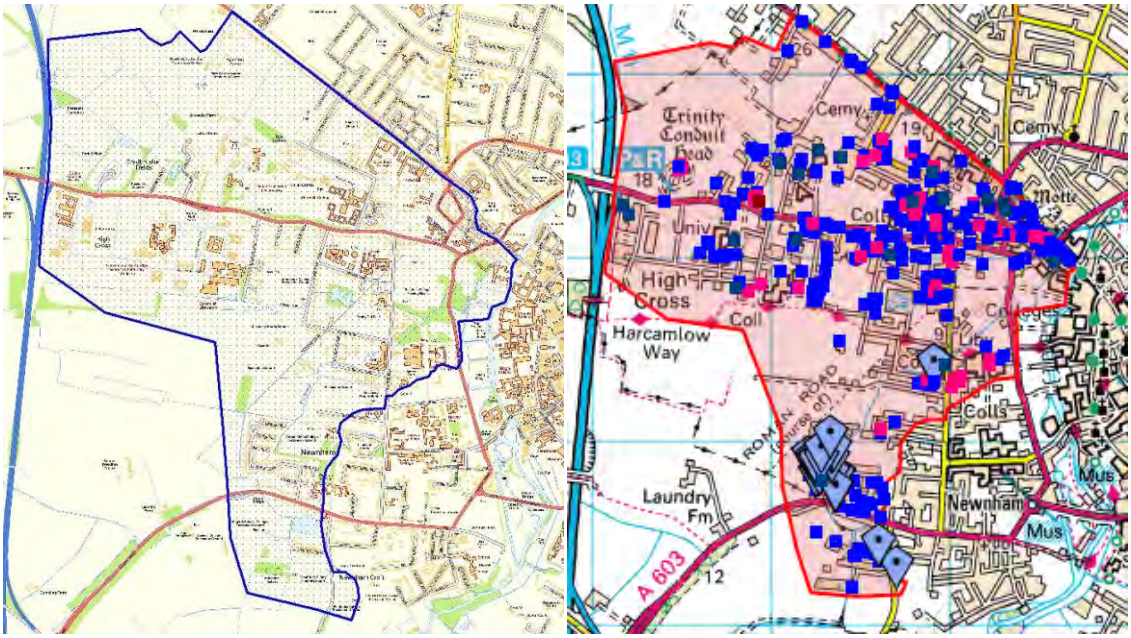
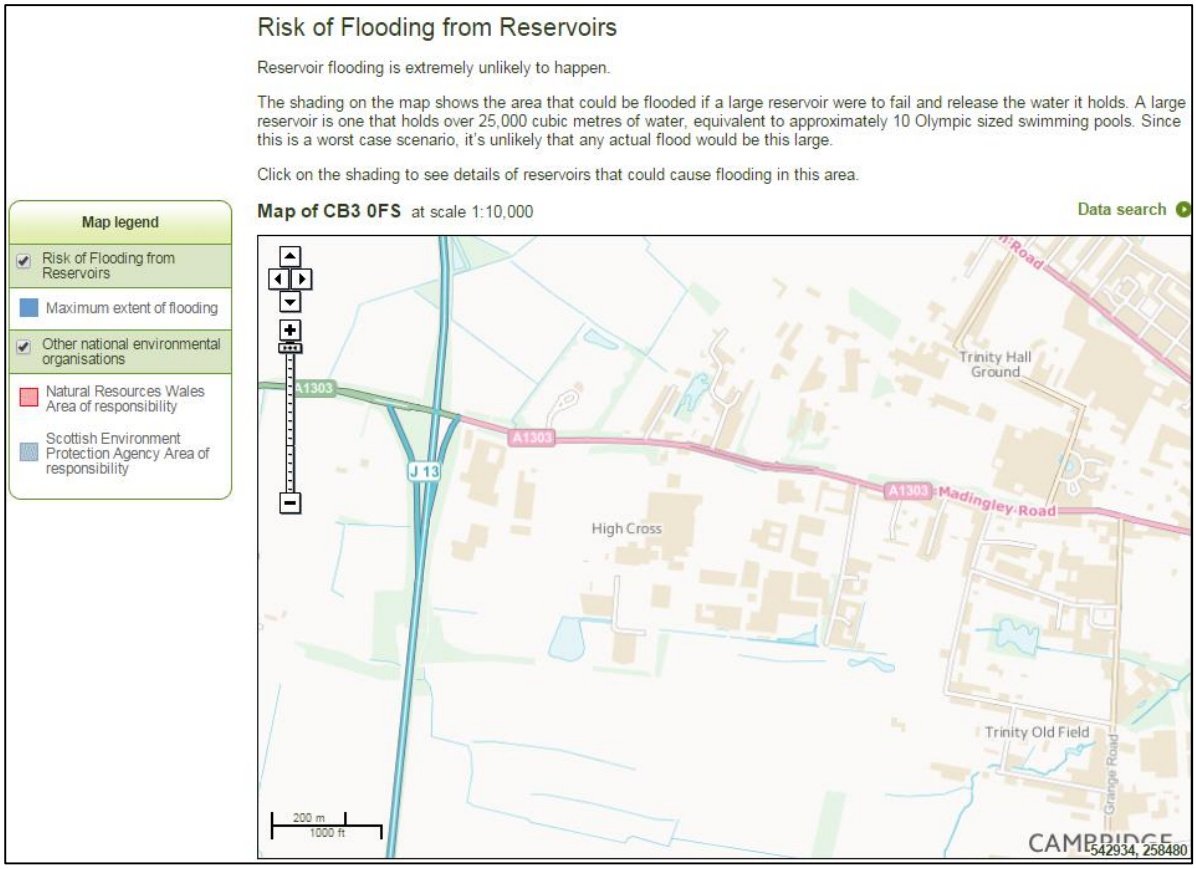
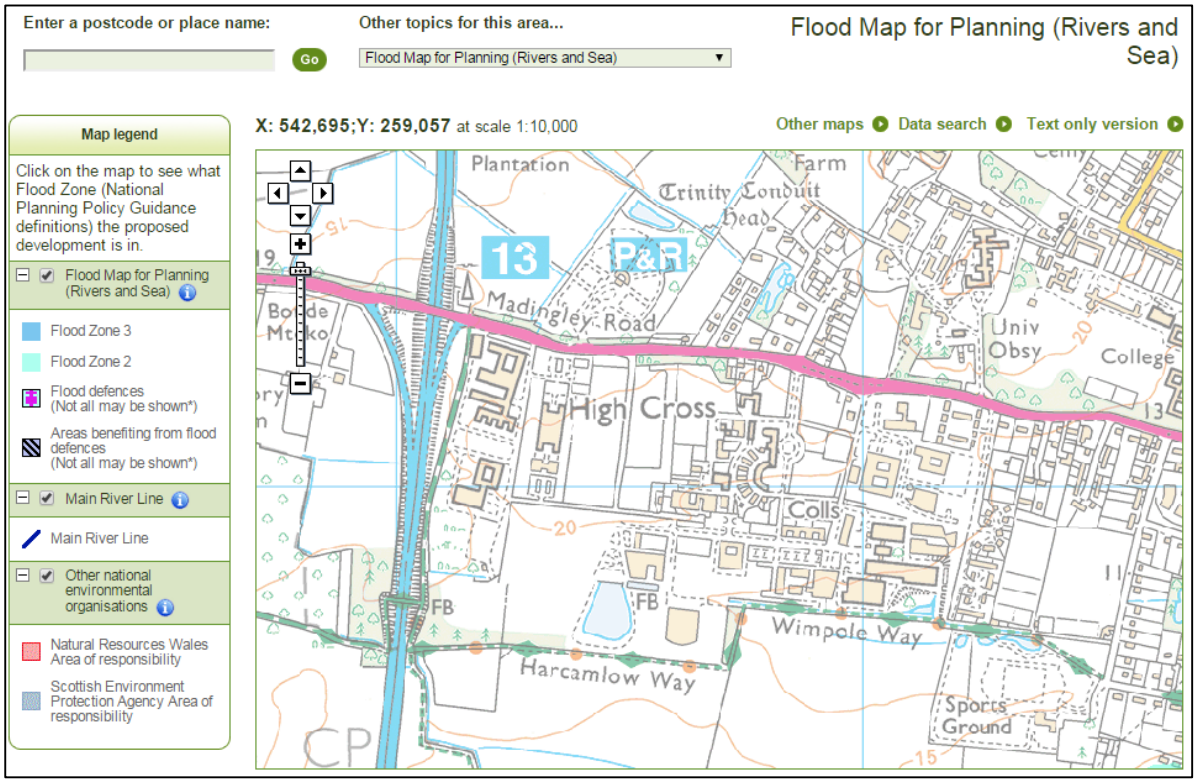


Figure 8-3 Location of Bin Brook wetspot

Appendix N Environment Agency Data

Environment Agency maps – Accessed on 14/04/2016





Risk of Flooding from Surface Water

Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

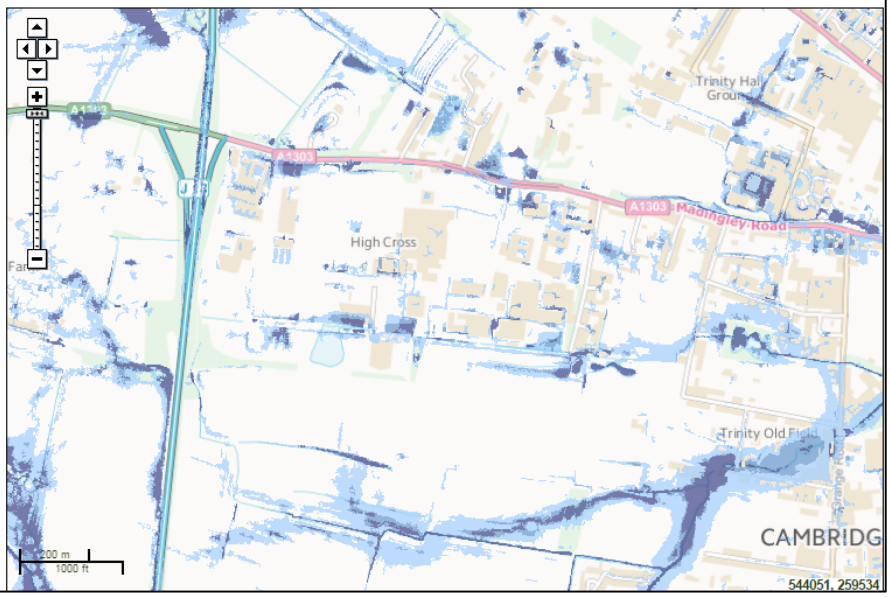
The shading on the map shows the risk of flooding from surface water in this particular area.

Click on the map for a more detailed explanation.

Map legend

- Risk of Flooding from Surface Water
  - High
  - Medium
  - Low
  - Very Low
- Other national environmental organisations
  - Natural Resources Wales Area of responsibility
  - Scottish Environment Protection Agency Area of responsibility

Map of X: 542,806; Y: 258,871 at scale 1:10,000 Data search



Surface Water Depth - Low Chance of Occurring

Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

The shading on the map shows the estimated water depth when there is a low chance of flooding.

Click in the legend to see estimated water depths for high and medium chances of flooding, and for estimated velocity (speed and direction of the water).

Map legend

- Surface Water Depth - Low Chance of Occurring
  - Over 900mm
  - 300-900mm
  - Below 300mm
- Other national environmental organisations
  - Natural Resources Wales Area of responsibility
  - Scottish Environment Protection Agency Area of responsibility

Chance of occurring

- (•) Low
- ( ) Medium
- ( ) High

Other layers

Switch to layer:

- Surface water extent

Map of X: 542,806; Y: 258,871 at scale 1:10,000 Data search

Surface Water Velocity - Low Chance of Occurring

Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

The shading on the map shows the estimated water speed when there is a low chance of flooding. The estimated direction of the water is shown when you zoom in.

Click in the legend to see estimated water velocities for high and medium chances of flooding, and for estimated water depth.

Map legend

- Surface Water Velocity - Low Chance of Occurring
- Over 0.25 m/s
- Less than 0.25 m/s
- Direction of water
- Other national environmental organisations
- Natural Resources Wales Area of responsibility
- Scottish Environment Protection Agency Area of responsibility

Chance of occurring

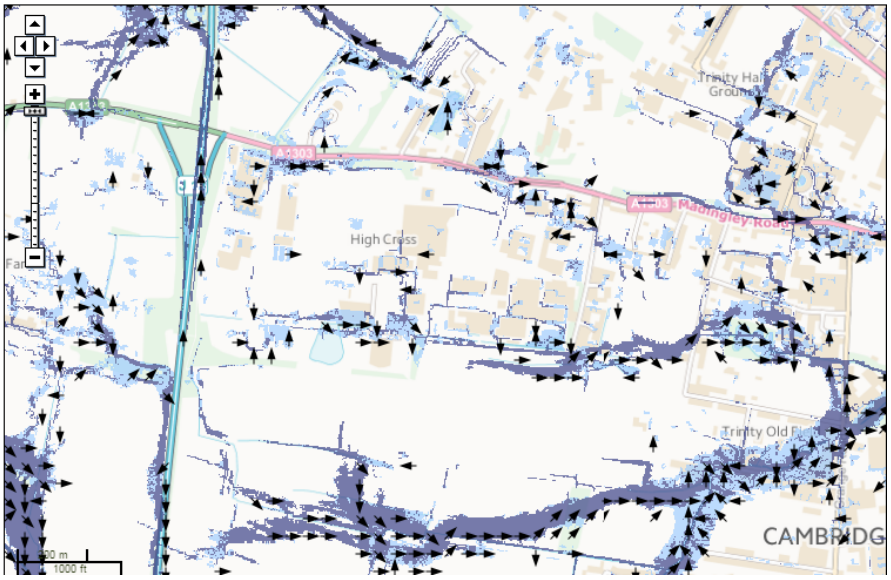
- Low
- Medium
- High

Other layers

Switch to layer:

- Surface water extent

Map of X: 542,806; Y: 258,871 at scale 1:10,000 Data search



Enter a postcode or place name: Go

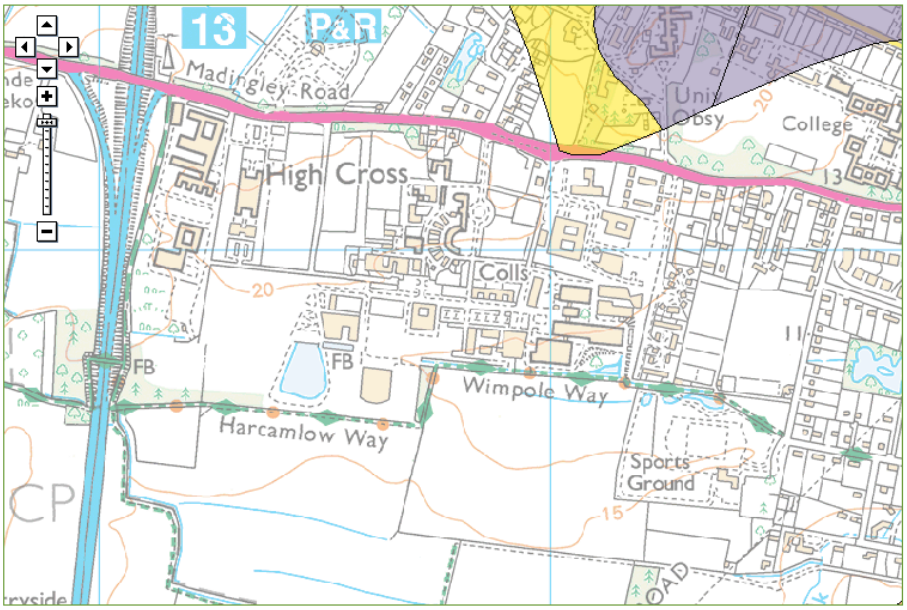
Other topics for this area... Groundwater

Groundwater

Map legend

- Groundwater source protection zones
- BGS Aquifer Maps - Superficial Deposits Designation
- BGS Aquifer Maps - Bedrock Designation
- Groundwater Vulnerability Zones
- Major Aquifer High
- Major Aquifer Intermediate
- Major Aquifer Low
- Minor Aquifer High
- Minor Aquifer Intermediate
- Minor Aquifer Low
- Other national environmental organisations

X: 542,787;Y: 258,878 at scale 1:10,000 Other maps Data search Text only version



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EA maps – Accessed on 29/9/2015

Enter a postcode or place name: Other topics for this area...

Go | Risk of Flooding from Reservoirs | View other Interactive Maps

Risk of Flooding from Reservoirs

Reservoir flooding is extremely unlikely to happen.

The shading on the map shows the area that could be flooded if a large reservoir were to fail and release the water it holds. A large reservoir is one that holds over 25,000 cubic metres of water, equivalent to approximately 10 Olympic sized swimming pools. Since this is a worst case scenario, it's unlikely that any actual flood would be this large.

Click on the shading to see details of reservoirs that could cause flooding in this area.

Map legend

- Risk of Flooding from Reservoirs
- Maximum extent of flooding
- Other national environmental organisations
- Natural Resources Wales Area of responsibility
- Scottish Environment Protection Agency Area of responsibility

Map of CB3 0FS at scale 1:10,000 — Data search

Enter a postcode or place name: Other topics for this area...

Go | Flood Map for Planning (Rivers and Sea)

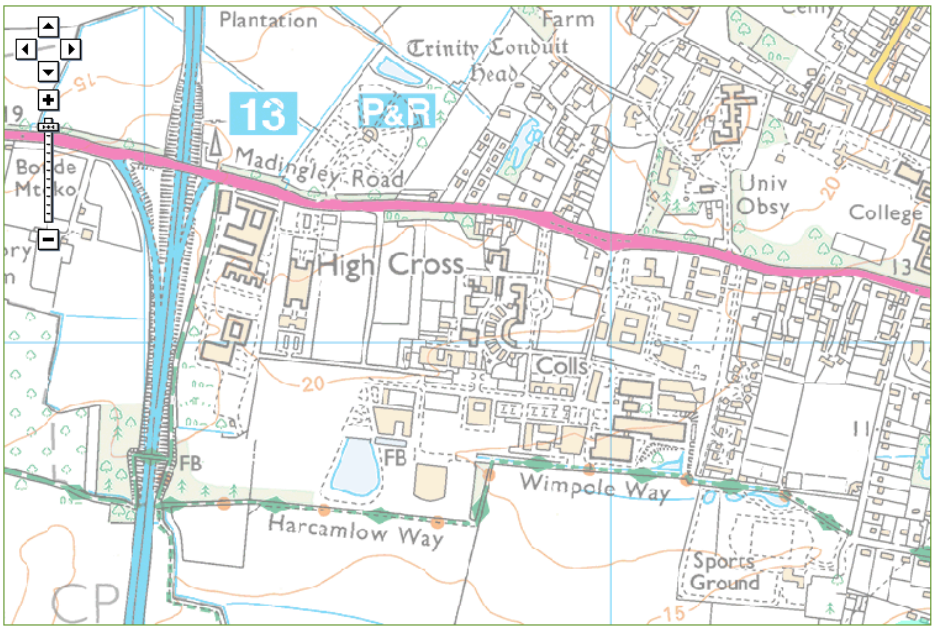
Flood Map for Planning (Rivers and Sea)

Map legend

Click on the map to see what Flood Zone (National Planning Policy Guidance definitions) the proposed development is in.

- Flood Map for Planning (Rivers and Sea)
- Flood Zone 3
- Flood Zone 2
- Flood defences (Not all may be shown*)
- Areas benefiting from flood defences (Not all may be shown*)
- Main River Line
- Main River Line
- Other national environmental organisations
- Natural Resources Wales Area of responsibility
- Scottish Environment Protection Agency Area of responsibility

X: 542,695;Y: 259,057 at scale 1:10,000 — Other maps | Data search | Text only version



Enter a postcode or place name:

Go

Other topics for this area...

Risk of Flooding from Surface Water

View other Interactive Maps

Risk of Flooding from Surface Water

Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

The shading on the map shows the risk of flooding from surface water in this particular area.

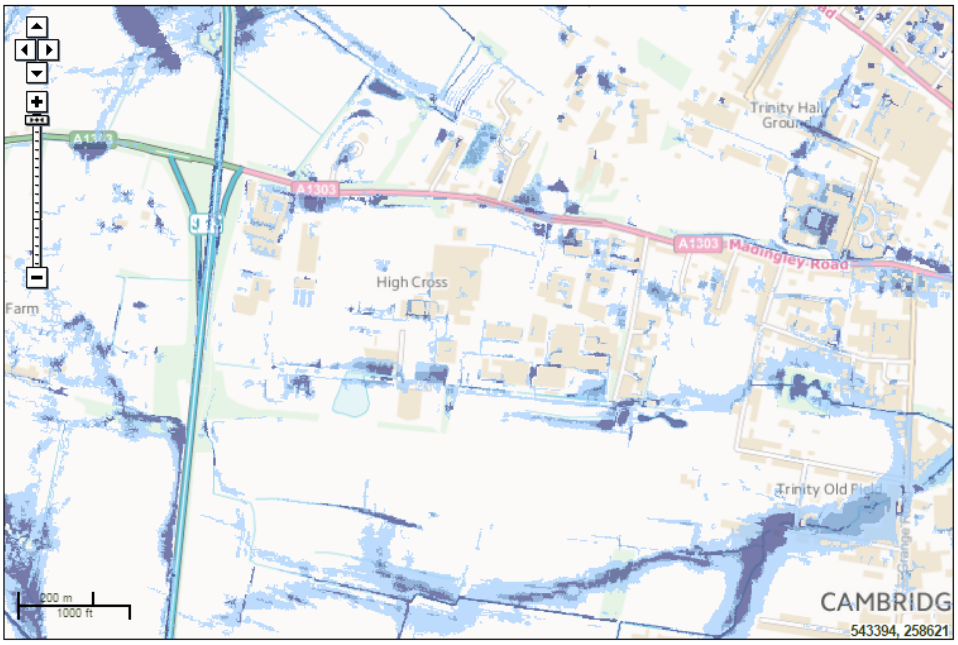
Click on the map for a more detailed explanation.

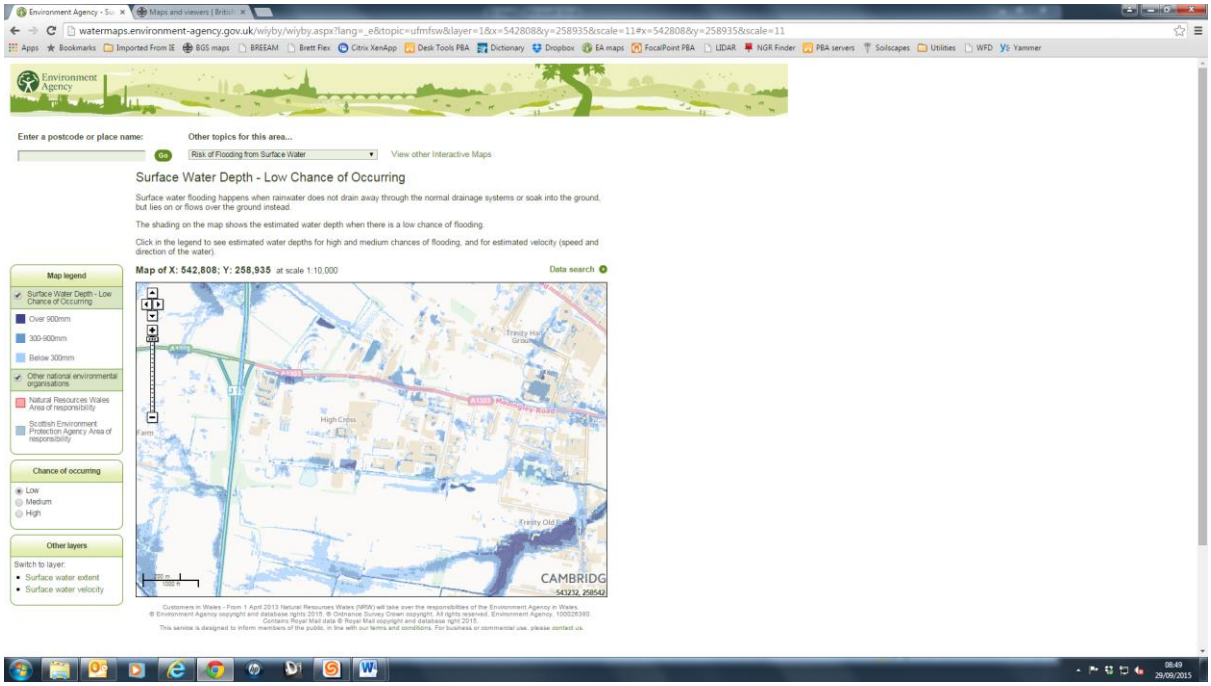
Map legend

- Risk of Flooding from Surface Water
  - High
  - Medium
  - Low
  - Very Low
- Other national environmental organisations
  - Natural Resources Wales Area of responsibility
  - Scottish Environment Protection Agency Area of responsibility

Map of X: 542,808; Y: 258,935 at scale 1:10,000

Data search




watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?lang=_e&topic=ufmfsw&layer=1&x=542808&y=258935&scale=11#x=542808&y=258935&scale=11
Environment Agency
Enter a postcode or place name:
Go
Other topics for this area...
Risk of Flooding from Surface Water
View other Interactive Maps
Surface Water Depth - Low Chance of Occurring
Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.
The shading on the map shows the estimated water depth when there is a low chance of flooding.
Click in the legend to see estimated water depths for high and medium chances of flooding, and for estimated velocity (speed and direction of the water).
Map of X: 542,808; Y: 258,935 at scale 1:10,000
Data search
Map legend
Surface Water Depth - Low Chance of Occurring
Over 900mm
300-900mm
Below 300mm
Other national environmental organisations
Natural Resources Wales Area of responsibility
Scottish Environment Protection Agency Area of responsibility
Chance of occurring
Low
Medium
High
Other layers
Switch to layer:
Surface water extent
Surface water velocity
A1303
A603
High Cross
CAMBRIDG
543212, 258542
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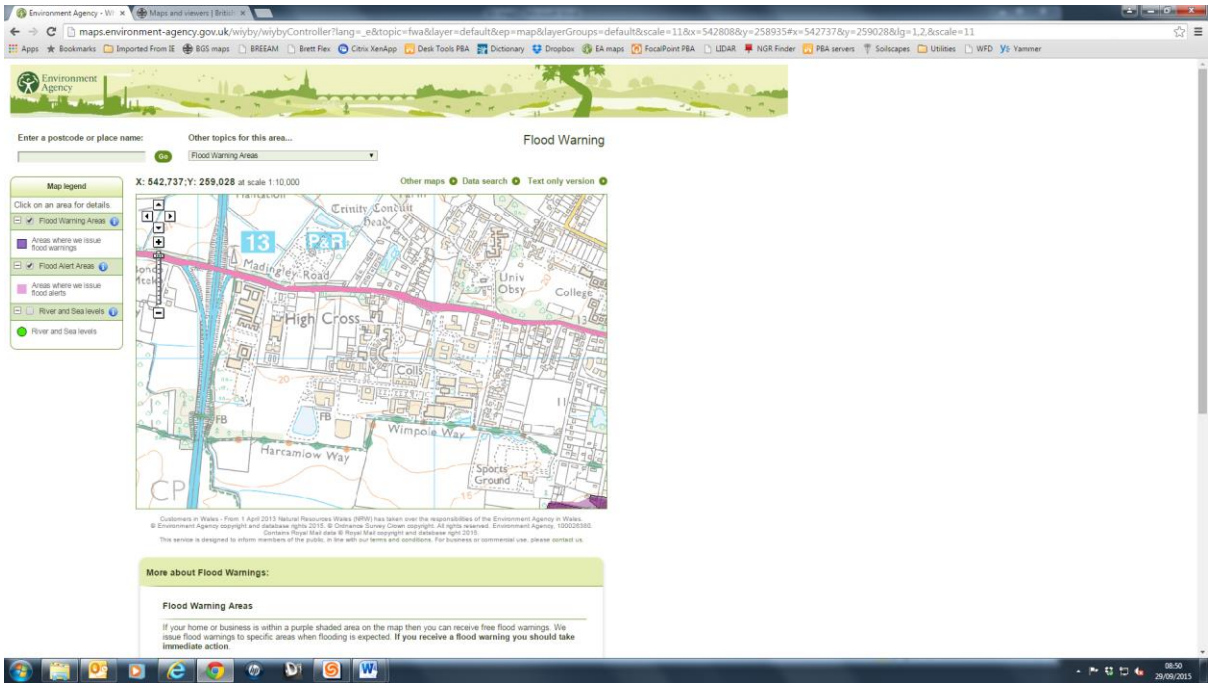
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Environment Agency
Enter a postcode or place name:
Go
Other topics for this area...
Flood Warning Areas
Flood Warning
Map legend
Click on an area for details
Flood Warning Areas
Areas where we issue flood warnings
Flood Alert Areas
Areas where we issue flood alerts
River and Sea levels
River and Sea levels
X: 542,737;Y: 259,028 at scale 1:10,000
Other maps
Data search
Text only version
13
P&R
Madingley Road
High Cross
Wimpole Way
Harrarniow Way
Sports Ground
Univ Obsy
College
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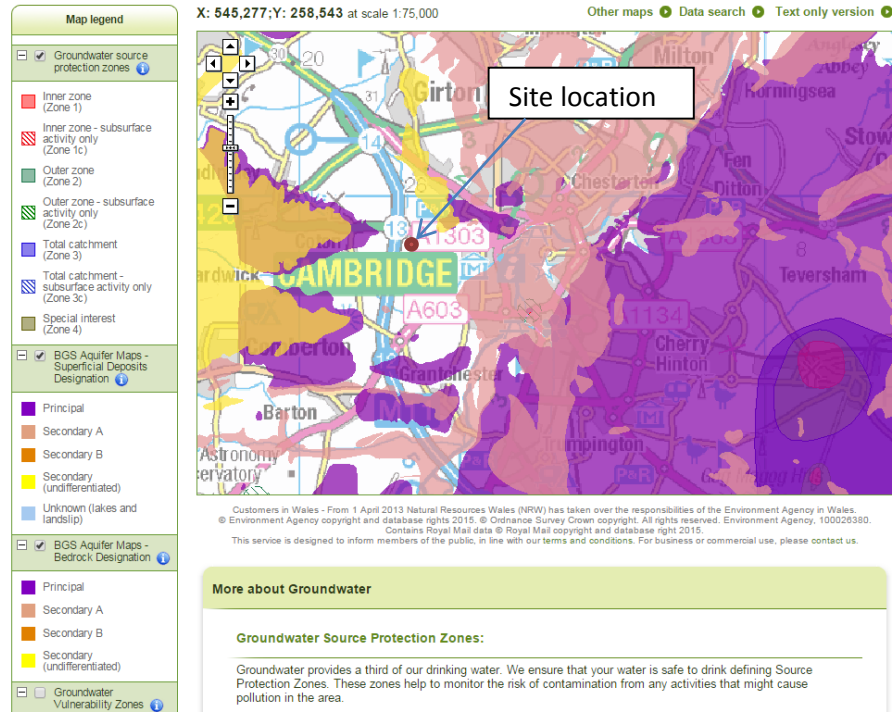
Flood Warning Areas
If your home or business is within a purple shaded area on the map then you can receive free flood warnings. We issue flood warnings to specific areas when flooding is expected. If you receive a flood warning you should take immediate action.


Map legend
Groundwater source protection zones
Inner zone (Zone 1)
Inner zone - subsurface activity only (Zone 1c)
Outer zone (Zone 2)
Outer zone - subsurface activity only (Zone 2c)
Total catchment (Zone 3)
Total catchment - subsurface activity only (Zone 3c)
Special interest (Zone 4)
BGS Aquifer Maps - Superficial Deposits Designation
Principal
Secondary A
Secondary B
Secondary (undifferentiated)
Unknown (lakes and landslip)
BGS Aquifer Maps - Bedrock Designation
Principal
Secondary A
Secondary B
Secondary (undifferentiated)
Groundwater Vulnerability Zones
X: 545,277;Y: 258,543 at scale 1:75,000
Other maps
Data search
Text only version
Site location
CAMBRIDGE
A603
A1303
Girton
Milton
Chesterton
Fen Ditton
Teversham
Cherry Hinton
Barton
Grantchester
Trumpington
Astronomy
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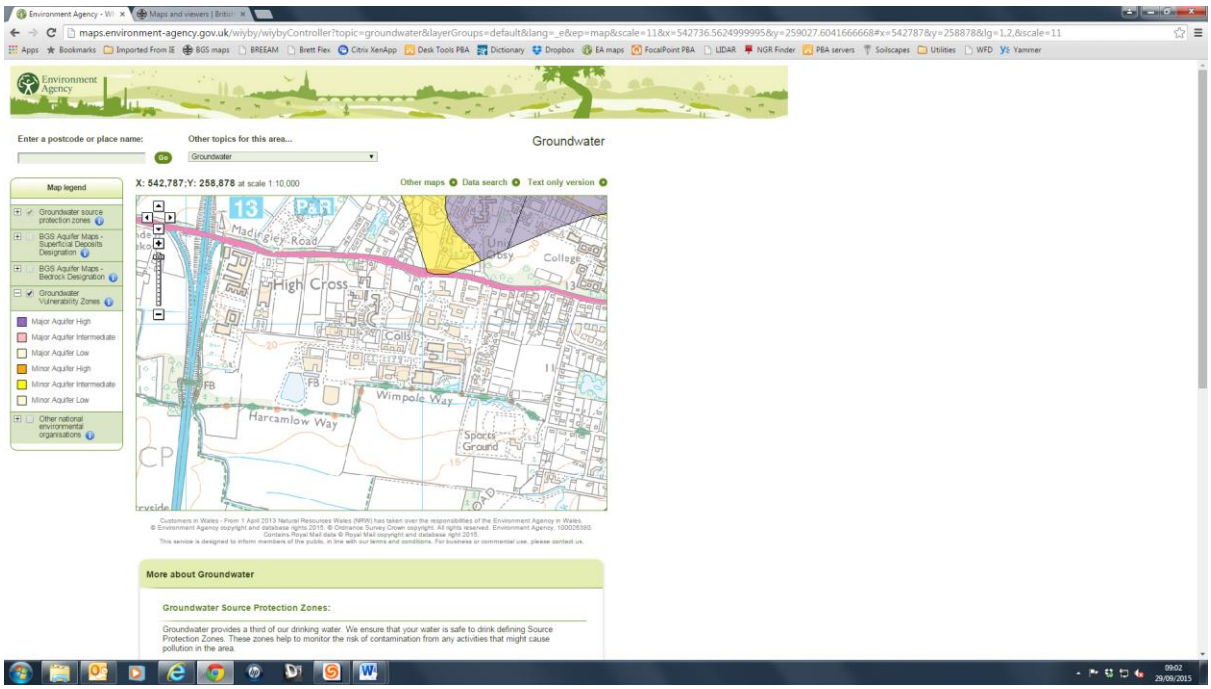
More about Groundwater
Groundwater Source Protection Zones:
Groundwater provides a third of our drinking water. We ensure that your water is safe to drink defining Source Protection Zones. These zones help to monitor the risk of contamination from any activities that might cause pollution in the area.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Environment Agency
Enter a postcode or place name:
Other topics for this area...
Groundwater
Map legend
X: 542,787;Y: 258,878 at scale 1:10,000
Other maps
Data search
Text only version
13
P&R
Madingley Road
High Cross
Wimpole Way
Harcamlow Way
Sports Ground
College
More about Groundwater
Groundwater Source Protection Zones:
Groundwater provides a third of our drinking water. We ensure that your water is safe to drink defining Source Protection Zones. These zones help to monitor the risk of contamination from any activities that might cause pollution in the area.

Appendix O Illustrative Construction Phasing Plans

KEY;

- EXISTING PIPE TO BE ABANDONED
- PROPOSED SURFACE WATER PIPE TO BE INSTALLED (SIZE TO BE DETERMINED)
- PROPOSED FOUL WATER PIPE TO BE INSTALLED
- EXISTING SURFACE WATER PIPE TO BE REPLACED WITH LARGER CAPACITY PIPE
- EXISTING SURFACE WATER PIPE
- EXISTING FOUL WATER PIPE
- SW SHOWN @ 1:100 — INDIVIDUAL PLOT SPUR CONNECTION TO SURFACE WATER SEWER (WHERE ONSITE STORAGE IS TO BE PROVIDED - REFER TO AREAS SHOWN PINK, A FLOW RATE HAS BEEN CALCULATED BY MULTIPLYING THE 100yr GREEN FIELD RUNOFF RATE WITH THE EXTENT OF IMPERMEABLE AREA IN WHICH EXISTS ON PLOT)
- FW @ 1:100 — INDIVIDUAL PLOT SPUR CONNECTION TO FOUL WATER SEWER LAID AT 1/1150 AND TO BE 150 DIA.
- INDICATIVE BIORETENTION AREAS
- PROPOSED SUDS SWALE
- PROPOSED TREE PLANTING
- EXISTING TREES WITH ROOT PROTECTION ZONE

SHEET KEY PLAN

SHEET 1 SHEET 2 SHEET 3 SHEET 4 SHEET 5 SHEET 6

TABLE IDENTIFYING PROPOSED SURFACE WATER STRATEGY AND CONTRIBUTING AREAS

	*COMBINED TOTAL OF CATCHMENT AREAS (ha)	*COMBINED TOTAL ASSUMED IMPERMEABLE AREA OF CATCHMENT AREAS (ha)	PROPOSED SURFACE WATER RELEASE RATES
CATCHMENT AREAS DRAINING DIRECTLY TO SOUTH WEST LAKE	31.88ha	20.49ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS
CATCHMENT AREAS DRAINING DIRECTLY TO CAMS.	1.437ha	0.68ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS
CATCHMENT AREAS UTILISING ONSITE STORAGE	22.54ha	15.80ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS (MIN THROTTLE RATE = 1 l/s)
CATCHMENT AREAS DRAINING TO PUBLIC SEWER ON MADINGLEY ROAD	9.05ha	6.02ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS (MIN THROTTLE RATE = 1 l/s)
CATCHMENT AREAS DRAINING DIRECTLY TO PAYNES POND	3.85ha	1.78ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS
	TOTAL 48.14ha	TOTAL 44.88ha	

TABLE NOTES

THE TOTAL IMPERMEABLE AREAS HAVE BEEN ASSUMED BASED ON THE LAND USE THAT IS BEING PROPOSED (AS OF THE AECOM PARAMETER PLAN). THIS HAS TYPICALLY BEEN ASSUMED TO BE THE FOLLOWING:

- 85% IMPERMEABLE FOR DEVELOPMENT PLOTS
- 35 - 50% IMPERMEABLE FOR PUBLIC OPEN SPACE
- EXISTING ACCUMENTS WHICH WILL REMAIN HAVE BEEN MEASURED AS OF THEIR CURRENT IMPERMEABLE AREAS

FOR FURTHER INFORMATION ON PROPOSED WORKS TO EXISTING DRAINAGE INFRASTRUCTURE AND STORAGE VOLUMES TO INCREASE EXISTING ATTENUATION CAPACITY REFER TO P&A DRAWING 31500-2006-116, 117 & 118

GREEN FIELD RUNOFF RATES USED FOR DESIGN (l/s/ha)

1 YEAR =2.92 l/s/ha

THE GREEN FIELD RUNOFF RATE STIPULATED ABOVE HAS BEEN BASED ON A 10% BETTERMENT ON THE GREENFIELD RUNOFF RATES STIPULATED WITHIN THE STAGE 1B DRAINAGE TECHNICAL NOTE DATED DECEMBER 2014

TABLE IDENTIFYING PROPOSED CONTRIBUTING AREAS TO BIN BROOK AND WASHPIT BROOK WATERCOURSE

	TOTAL CATCHMENT AREA (ha)	TOTAL CATCHMENT IMPERMEABLE AREA (ha)
WASHPIT BROOK CATCHMENT	8.04ha	6.02ha
BIN BROOK CATCHMENT	58.10ha	38.88ha
TOTAL 66.14ha		TOTAL 44.90ha

D01

AS OF EXISTING
TOTAL AREA =0.180ha
IMPERMEABLE AREA =0.153 (85%)
CATCHMENT OUTFALL PIPE MADINGLEY ROAD
TOTAL BUILDING FLOOR AREA=0.158ha

EXISTING FOUL SEWER MAKES CONNECTION TO FOUL SEWER ALONG MADINGLEY ROAD

PROPOSED CATCHMENT CONNECTION POINT (CATCHMENT AREA TO BE DEDICATED AS PUBLIC OPEN SPACE AND WILL UTILISE VARIOUS SUDS FEATURES TO ATTENUATE FLOW)

DISCHARGE FLOW RATES
• 1:1yr =0.368l/s (ASSUME 1l/s)

CL 18.42
IL 16.78
1932m3 OF STORAGE REQUIRED

DISCHARGE FLOW RATES
• 1:1yr =5.35l/s

CL 18.61
IL 17.47
414m3 OF STORAGE REQUIRED

DISCHARGE FLOW RATES
• 1:1yr =1.15l/s

C_PR02

TOTAL AREA =0.229ha
IMPERMEABLE AREA =0.080ha (35%)
CATCHMENT OUTFALL PIPE MADINGLEY ROAD

TOTAL AREA =0.937ha
IMPERMEABLE AREA =0.328 (35%)
CATCHMENT OUTFALL PIPE MADINGLEY ROAD

TOTAL AREA = 0.110ha
IMPERMEABLE AREA = 0.039ha (35%)

B_PR05a

D02

AS OF EXISTING
TOTAL AREA =2.511ha
IMPERMEABLE AREA =2.134ha (85%)
CATCHMENT OUTFALL PIPE MADINGLEY ROAD
TOTAL BUILDING FLOOR AREA =1.283ha

PROPOSED CATCHMENT CONNECTION POINT (CATCHMENT AREA TO BE DEDICATED AS PUBLIC OPEN SPACE AND WILL UTILISE VARIOUS SUDS FEATURES TO ATTENUATE FLOW)

DISCHARGE FLOW RATES
• 1:1yr =0.233l/s (ASSUME 1l/s)

NEW MANHOLE TO BE BUILT ON EXISTING SEWER
CL 18.72
IL 17.21

TOTAL AREA = 0.342ha
IMPERMEABLE AREA = 0.120ha (35%)

PROPOSED CATCHMENT CONNECTION POINT
CL 19.52
IL 17.88
2641m3 OF STORAGE REQUIRED

DISCHARGE FLOW RATES
• 1:1yr =7.30 l/s

TOTAL AREA =3.597ha
IMPERMEABLE AREA =3.057ha (85%)
CATCHMENT OUTFALL PIPE MADINGLEY ROAD
TOTAL BUILDING FLOOR AREA =0.950ha

C_PR01

PROPOSED CATCHMENT SW CONNECTION POINT

CL 19.80
IL 18.14
17m3 OF STORAGE REQUIRED

DISCHARGE FLOW RATES
• 1:1yr =0.098l/s (ASSUME 1l/s)

TOTAL AREA = 0.217ha
IMPERMEABLE AREA = 0.076ha (35%)

CL 20.00
IL 17.404
997m3 OF STORAGE REQUIRED

DISCHARGE FLOW RATES
• 1:1yr =3.240l/s

CL 19.01
IL 19.50
PROPOSED PEAK FLOW RATE =2.89l/s (TO DISCHARGE TO MADINGLEY ROAD SEWER)

S6.000
USIL 18.719m
300mm

CL 20.19
IL 18.79
PROPOSED PEAK FLOW RATE =3.85l/s

C_PR03

AS OF EXISTING
TOTAL AREA =2.062ha
IMPERMEABLE AREA =1.091ha (50%)
TOTAL BUILDING FLOOR AREA =0.947ha

C01

C08

B07

DENOTES POTENTIAL AREAS WHERE BIORETENTION ZONES COULD BE INSTALLED SUBJECT TO FURTHER INVESTIGATION OF SERVICES AND CO-ORDINATION WITH LANDSCAPING (EXISTING AND PROPOSED)

F5.000
USIL 18.050m
225mm

S7.003
USIL 18.420m
375mm

S7.002
USIL 18.710m
375mm

B_PR04

AS OF EXISTING
TOTAL AREA =0.682ha
IMPERMEABLE AREA =0.341ha (50%)
TOTAL BUILDING FLOOR AREA =0ha

D03

CL 20.32
IL 18.10

S2.000
USIL 17.965m
525mm

CL 20.18
IL 18.10

S6.001
USIL 17.919m
600mm

F5.001
USIL 17.590m
225mm

S6.002
USIL 17.619m
600mm

S6.003
USIL 17.360m
680mm

D04

S2.001
USIL 17.397m
675mm

CL 21.15
IL 18.78
PROPOSED PEAK FLOW RATE =2.13l/s

CL 21.32
IL 18.20
PROPOSED PEAK FLOW RATE =2.14l/s

TO MAKE CONNECTION TO EXISTING SW NETWORK AT THE POINT
CL 20.92
IL 17.36

TOTAL AREA =.856ha
IMPERMEABLE AREA =0.300ha (35%)

AS OF EXISTING
TOTAL AREA =0.819ha
IMPERMEABLE AREA =0.695ha (85%)
TOTAL BUILDING FLOOR AREA =0.380ha

CL 20.541
IL UNKNOWN
PROPOSED PEAK FLOW RATE =0.80l/s (TO DISCHARGE TO MADINGLEY ROAD SEWER)

C_PR04

CL 21.15
IL 18.78
PROPOSED PEAK FLOW RATE =1.75l/s

TOTAL AREA = 0.070ha
IMPERMEABLE AREA = 0.040ha (35%)

PROPOSED CATCHMENT SW CONNECTION POINT

F6.000
USIL 18.800m
150mm

CL 20.59
IL 17.30
PROPOSED PEAK FLOW RATE =5.34l/s

NEW MANHOLE TO BE BUILT ON EXISTING F/W SEWER
CL 20.75
IL 17.17

TOTAL AREA =1.556ha
IMPERMEABLE AREA =1.323ha (85%)
TOTAL BUILDING FLOOR AREA =2.375ha

D07c

TOTAL AREA =0.332ha
IMPERMEABLE AREA =0.282ha (85%)
TOTAL BUILDING FLOOR AREA =0ha

S1.000

D06

TOTAL AREA =0.307ha
IMPERMEABLE AREA =0.176ha (85%)
TOTAL BUILDING FLOOR AREA =0.282ha

S2.002

C02

TOTAL AREA =0.800ha
IMPERMEABLE AREA =0.680ha (85%)
TOTAL BUILDING FLOOR AREA =0.777ha

C03

CL 20.76
IL 17.60
PROPOSED PEAK FLOW RATE =1.97l/s

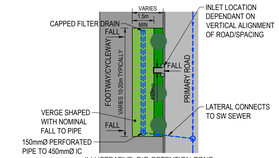
PROPOSED SUDS RAIN GARDEN PLANTATION GULLYS
REFER TO DIAGRAM A

F5.002
USIL 17.170m
225mm

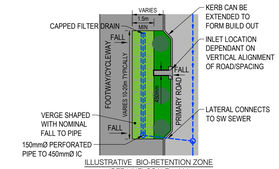
B06

NOTES

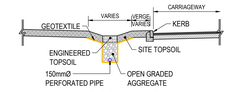
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN UNLESS NOTED OTHERWISE.
3. ALL COORDINATES ARE IN METRES RELATIVE TO ORDNANCE SURVEY NATIONAL GRID.
4. THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING WORK OR PREPARING SHOP DRAWINGS.
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS AND ARCHITECTS DRAWINGS AND SPECIFICATIONS.
6. FOR FURTHER INFORMATION ON SITE WIDE PROPOSED STORAGE PROVISIONS AND ARRANGEMENTS PLEASE REFER TO P&A DRAWING 31500-2006-116, 117 & 118
7. ALL EXISTING INVERT LEVELS SHOWN ON THIS PLAN HAVE BEEN BASED OFF THE FOLLOWING;
   - GREEN HATCH TOPOGRAPHICAL SURVEY.
   - CAMLINE SERVICES CCTV SURVEY.
8. THE COVER LEVELS SHOWN ON THIS PLAN REPRESENT EXISTING GROUND LEVEL. THESE LEVELS WILL BE SUBJECT TO CHANGE AS PROPOSED WORKS AND DEVELOPMENT LEVELS ARE SET. THESE SHOULD THEREFORE BE SEEN AS HIGHLY INDICATIVE AT THIS STAGE
9. ON PLOT STORAGE ESTIMATES SHOWN ON THIS PLAN ARE BASED OFF THE 1:100 YEAR + 40%cc STORM EVENT AND ARE ASSUMING EACH PLOT WILL UTILISE A SINGLE CONTROL RELEASING WATER AT THE 1:1yr GREENFIELD RUNOFF RATE (MIN FLOW RATE OF 1 l/s - SEE NOTE 14).
10. THE PIPE SIZES SHOWN ON THIS PLAN HAVE BEEN TESTED FOR FLOODING FOR THE 1:30 YEAR RETURN PERIOD STORM ONLY. IT WILL ALSO NEED TO BE DEMONSTRATED THAT FLOODING TO BUILDING AREAS DOES NOT OCCUR DURING THE 1:100 YEAR STORM EVENT + 40% CLIMATE CHANGE EVENT. WITHOUT ADEQUATE PROPOSED LEVELS HOWEVER, THIS CANNOT BE SATISFACTORILY DETERMINED AT THIS STAGE AND THEREFORE THE PIPE SIZES SHOWN ON THIS PLAN ARE SUBJECT TO RUNNING THIS SIMULATION WHEN PLOT LEVELS BECOME AVAILABLE
11. ALL STORAGE VOLUMES SHOWN ON THIS PLAN HAVE INCLUDED FOR AN ADDITIONAL 40% ALLOWANCE FOR CLIMATE CHANGE. THIS REPRESENTS THE "UPPER" LIMIT OF GOVERNMENT GUIDANCE
12. THE COVER LEVELS SHOWN ON THIS PLAN REPRESENT EXISTING GROUND LEVEL. THESE LEVELS WILL BE SUBJECT TO CHANGE AS PROPOSED WORKS AND DEVELOPMENT LEVELS ARE SET. THESE SHOULD THEREFORE BE SEEN AS HIGHLY INDICATIVE AT THIS STAGE
13. AREAS SHOWN HATCHED PINK ON THIS PLAN INDICATE AREAS WHERE ONSITE PLOT STORAGE (REFER TO NOTE 9) IS REQUIRED. INDIVIDUAL SITE DEVELOPERS ARE FREE TO DELIVER ON PLOT SURFACE WATER STORAGE AS THEY DEEM NECESSARY AND FITTING IN WITH THE CHARACTERISTICS OF THEIR DEVELOPMENT. IT IS ENVISAGED THIS WILL MEAN UTILISING SUDS FEATURES SUCH AS GREEN / BLUE ROOFS, SWALES AND PERMEABLE PAVING.
14. IT IS ASSUMED THE MINIMUM SW DISCHARGE RATE FROM INDIVIDUAL PLOTS WILL BE CAPPED AT 1 l/s. IN ORDER TO REDUCE BLOCKAGE RISK ASSOCIATED WITH FLOW CONTROLS, MONTHLY INSPECTIONS OF ALL FLOW CONTROLS (IN ACCORDANCE WITH THE CAMBRIDGESHIRE SUDS ADOPTION GUIDE) WILL BE CARRIED OUT AND OVERFLOW WEIRS INSTALLED)
15. PEAK FOUL FLOW RATES SHOWN ON THIS PLAN HAVE BEEN DETERMINED BY MULTIPLYING TOTAL PLOT DEVELOPABLE FLOOR AREAS (TAKEN FROM AECOM DEVELOPMENT SCHEDULE VERSION 5, DATES 10.02.2016) BY 2.25l/s/ha. THIS CAPACITY HAS BEEN AGREED WITH ANGLIAN WATER.
16. ALL FINISHED FLOOR LEVELS WILL BE ESTABLISHED TAKING IN TO FULL ACCOUNT DRAINAGE CONNECTIONS.
17. WHILST AREAS SHOWN HATCHED GREEN ON THIS PLAN HAVE A FREE FLOW DISCHARGE TO THE EXISTING WESTERN LAKE, INDIVIDUAL PARCEL OCCUPIERS WILL BE REQUIRED TO IMPLEMENT MEASURES ONSITE TO PROVIDE TREATMENT OF FLOWS LEAVING PLOTS.
18. ALL DEVELOPMENT PARCELS IMPLEMENTING SERVICE YARDS WILL BE REQUIRED TO ENSURE ALL RUNOFF LEAVING THESE AREAS IS PASSED THROUGH A CLASS 1 BYPASS SEPARATOR PRIOR TO RUNOFF ENTERING THE WIDER SURFACE WATER NETWORK
19. SUDS FEATURES SHOWN ON THIS PLAN ARE INDICATIVE. ALL LOCATIONS SHOWN ARE SUBJECT TO VERIFICATION AND CO-ORDINATION WITH EXISTING AND PROPOSED UNDERGROUND UTILITY INFRASTRUCTURE. ALL FEATURES TO BE IN ACCORDANCE WITH CAMBRIDGESHIRE SUDS DESIGN AND ADOPTION GUIDE
20. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE INFRASTRUCTURE DRAWINGS; 38814/2001/104-118
21. IT WILL BE THE RESPONSIBILITY OF PLOT DEVELOPERS TO ENSURE THEIR INDIVIDUAL PLOT DRAINAGE ARRANGEMENT'S ARE ROUTED TO THE SPUR CONNECTION DISCHARGE POINTS SHOWN ON THIS DRAWING. THIS INCLUDES EXISTING BUILDINGS WHICH WILL REQUIRE THEIR EXISTING DRAINAGE TO BE AMENDED TO ALIGN WITH THE PROPOSED STRATEGY SHOWN ON THIS DRAWING



ILLUSTRATIVE BIO-RETENTION ZONE (IN LINE) SCALE 1:200



ILLUSTRATIVE BIO-RETENTION ZONE (OFF LINE) SCALE 1:200



ILLUSTRATIVE BIO-RETENTION ZONE (CROSS SECTION) SCALE 1:100

Mark	Revision	Date	Drawn	Chkd	Appd
C	AMENDED TO REPRESENT UPDATED MASTERPLAN	30.06.17	GC	ST	ST
B	BIO-RETENTION ZONES AMENDED	12.12.16	GC	RC	ST
A	AMENDED FOLLOWING CPA COMMENTS	01.09.16	DRM	DRM	ST

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.

UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

Drawing Issue Status

PRELIMINARY

SURFACE WATER AND FOUL WATER DRAINAGE STRATEGY
SHEET 1 OF 6
WEST CAMBRIDGE DENSIFICATION

Client
UNIVERSITY OF CAMBRIDGE

Date of 1st Issue	Designed	Drawn
24.12.15	DRM	DRM
A0 Scale	Checked	Approved
1:500@A0	ST	ST

Drawing Number: 31500/2001/150
Revision: C

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CAMBRIDGE
Tel: 01223 882000

KEY:

- EXISTING PIPE TO BE ABANDONED
- PROPOSED SURFACE WATER PIPE TO BE INSTALLED (SIZE TO BE DETERMINED)
- PROPOSED FOUL WATER PIPE TO BE INSTALLED
- EXISTING SURFACE WATER PIPE TO BE REPLACED WITH LARGER CAPACITY PIPE
- EXISTING SURFACE WATER PIPE
- EXISTING FOUL WATER PIPE
- INDIVIDUAL PLOT SPUR CONNECTION TO SURFACE WATER SEWER (WHERE ONSITE STORAGE IS TO BE PROVIDED - REFER TO AREAS SHOWN PINK, A FLOW RATE HAS BEEN CALCULATED BY MULTIPLYING THE 100yr GREEN FIELD RUNOFF RATE WITH THE EXTENT OF IMPERMEABLE AREA IN WHICH EXISTS ON PLOT)
- INDIVIDUAL PLOT SPUR CONNECTION TO FOUL WATER SEWER LAID AT 1/150 AND TO BE 150 DIA.
- INDICATIVE BIORETENTION AREAS
- PROPOSED SUDS SWALE
- PROPOSED TREE PLANTING
- EXISTING TREES WITH ROOT PROTECTION ZONE

SHEET KEY PLAN

SHEET 1 SHEET 2 SHEET 3 SHEET 4 SHEET 5 SHEET 6

TABLE IDENTIFYING PROPOSED SURFACE WATER STRATEGY AND CONTRIBUTING AREAS

	*COMBINED TOTAL OF CATCHMENT AREAS (ha)	*COMBINED TOTAL ASSUMED IMPERMEABLE AREA OF CATCHMENT AREAS (ha)	PROPOSED SURFACE WATER RELEASE RATES
CATCHMENT AREAS DRAINING DIRECTLY TO SOUTH-WEST LAKE	31.89ha	20.45ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS
CATCHMENT AREAS DRAINING DIRECTLY TO CAMEL	1.431ha	0.66ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS
CATCHMENT AREAS UTILISING ONSITE STORAGE	22.94ha	15.85ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS (MIN THROTTLE RATE = 1 l/s)
CATCHMENT AREAS DRAINING TO PUBLIC SEWER ON MADINGLEY ROAD	8.029ha	8.02ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS (MIN THROTTLE RATE = 1 l/s)
CATCHMENT AREAS DRAINING DIRECTLY TO PAVING/ROAD	0.593ha	1.78ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS
		TOTAL =66.14ha	TOTAL =44.69ha

TABLE NOTES

THE TOTAL IMPERMEABLE AREAS HAVE BEEN ASSUMED BASED ON THE LAND USE THEY IS BEING PROPOSED (AS OF THE AECOM PARAMETER PLAN). THIS HAS TYPICALLY BEEN ASSUMED TO BE THE FOLLOWING:

- 85% IMPERMEABLE FOR DEVELOPMENT PLOTS
- 35 - 50% IMPERMEABLE FOR PUBLIC OPEN SPACE
- EXISTING CATCHMENTS WHICH WILL REMAIN HAVE BEEN MEASURED AS OF THEIR CURRENT IMPERMEABLE AREAS

FOR FURTHER INFORMATION ON PROPOSED WORKS TO EXISTING DRAINAGE INFRASTRUCTURE AND STORAGE VOLUMES TO INCREASE EXISTING ATTENUATION CAPACITY REFER TO PBA DRAWING 31500/2006-116, 117 & 118

GREEN FIELD RUNOFF RATES USED FOR DESIGN (l/s/ha)

1 YEAR =2.92 l/s/ha

(THE GREEN FIELD RUNOFF RATE STIPULATED ABOVE HAS BEEN BASED ON A 15% BETTERMENT ON THE GREENFIELD RUNOFF RATES STIPULATED WITHIN THE STATE 10 DRAINAGE TECHNICAL NOTE DATED DECEMBER 2014

TABLE IDENTIFYING PROPOSED CONTRIBUTING AREAS TO BIN BROOK AND WASHPIT BROOK WATERCOURSE

	TOTAL CATCHMENT AREA (ha)	TOTAL CATCHMENT IMPERMEABLE AREA (ha)
WASHPIT BROOK CATCHMENT	8.04ha	6.02ha
BIN BROOK CATCHMENT	58.10ha	38.88ha
	TOTAL 66.14ha	TOTAL 44.90ha

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN UNLESS NOTED OTHERWISE.
3. ALL COORDINATES ARE IN METRES RELATIVE TO ORDNANCE SURVEY NATIONAL GRID.
4. THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING WORK OR PREPARING SHOP DRAWINGS.
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6. FOR FURTHER INFORMATION ON SITE WIDE PROPOSED STORAGE PROVISIONS AND ARRANGEMENTS PLEASE REFER TO PBA DRAWING 31500-2006-116, 117 & 118
7. ALL EXISTING INVERT LEVELS SHOWN ON THIS PLAN HAVE BEEN BASED OFF THE FOLLOWING;
   - GREEN HATCH TOPOGRAPHICAL SURVEY.
   - CAMLINE SERVICES CCTV SURVEY.
8. THE COVER LEVELS SHOWN ON THIS PLAN REPRESENT EXISTING GROUND LEVEL. THESE LEVELS WILL BE SUBJECT TO CHANGE AS PROPOSED WORKS AND DEVELOPMENT LEVELS ARE SET. THESE SHOULD THEREFORE BE SEEN AS HIGHLY INDICATIVE AT THIS STAGE
9. ON PLOT STORAGE ESTIMATES SHOWN ON THIS PLAN ARE BASED OFF THE 1:100 YEAR + 40%cc STORM EVENT AND ARE ASSUMING EACH PLOT WILL UTILISE A SINGLE CONTROL RELEASING WATER AT THE 1:1yr GREENFIELD RUNOFF RATE (MIN FLOW RATE OF 1 l/s - SEE NOTE 14).
10. THE PIPE SIZES SHOWN ON THIS PLAN HAVE BEEN TESTED FOR FLOODING FOR THE 1:30 YEAR RETURN PERIOD STORM ONLY. IT WILL ALSO NEED TO BE DEMONSTRATED THAT FLOODING TO BUILDING AREAS DOES NOT OCCUR DURING THE 1:100 YEAR STORM EVENT + 40% CLIMATE CHANGE EVENT. WITHOUT ADEQUATE PROPOSED LEVELS HOWEVER, THIS CANNOT BE SATISFACTORILY DETERMINED AT THIS STAGE AND THEREFORE THE PIPE SIZES SHOWN ON THIS PLAN ARE SUBJECT TO RUNNING THIS SIMULATION WHEN PLOT LEVELS BECOME AVAILABLE
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13. AREAS SHOWN HATCHED PINK ON THIS PLAN INDICATE AREAS WHERE ONSITE PLOT STORAGE (REFER TO NOTE 9) IS REQUIRED. INDIVIDUAL SITE DEVELOPERS ARE FREE TO DELIVER ON PLOT SURFACE WATER STORAGE AS THEY DEEM NECESSARY AND FITTING IN WITH THE CHARACTERISTICS OF THEIR DEVELOPMENT. IT IS ENVISAGED THIS WILL MEAN UTILISING SUDS FEATURES SUCH AS GREEN / BLUE ROOFS, SWALES AND PERMEABLE PAVING.
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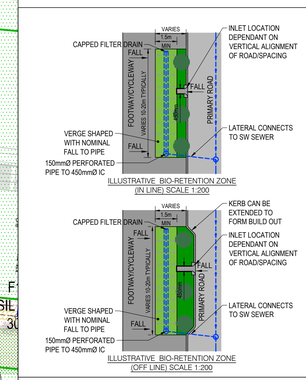
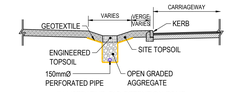
15. PEAK FLOW, FLOW RATES SHOWN ON THIS PLAN HAVE BEEN DETERMINED BY MULTIPLYING TOTAL PLOT DEVELOPABLE FLOOR AREAS (TAKEN FROM AECOM DEVELOPMENT SCHEDULE VERSION 5, DATES 10.02.2016) BY 2.25l/s/ha. THIS CAPACITY HAS BEEN AGREED WITH ANGLIAN WATER.
16. ALL FINISHED FLOOR LEVELS WILL BE ESTABLISHED TAKING IN TO FULL ACCOUNT DRAINAGE CONNECTIONS.
17. WHILST AREAS SHOWN HATCHED GREEN ON THIS PLAN HAVE A FREE FLOW DISCHARGE TO THE EXISTING WESTERN LAKE, INDIVIDUAL PARCEL OCCUPIERS WILL BE REQUIRED TO IMPLEMENT MEASURES ONSITE TO PROVIDE TREATMENT OF FLOWS LEAVING PLOTS.
18. ALL DEVELOPMENT PARCELS IMPLEMENTING SERVICE YARDS WILL BE REQUIRED TO ENSURE ALL RUNOFF LEAVING THESE AREAS IS PASSED THROUGH A CLASS 1 BYPASS SEPARATOR PRIOR TO RUNOFF ENTERING THE WIDER SURFACE WATER NETWORK
19. SUDS FEATURES SHOWN ON THIS PLAN ARE INDICATIVE. ALL LOCATIONS SHOWN ARE SUBJECT TO VERIFICATION AND CO-ORDINATION WITH EXISTING AND PROPOSED UNDERGROUND UTILITY INFRASTRUCTURE. ALL FEATURES TO BE IN ACCORDANCE WITH CAMBRIDGESHIRE SUDS DESIGN AND ADOPTION GUIDE
20. THESE INSET PLOT PLANS ARE TO BE READ IN CONJUNCTION WITH THE INFRASTRUCTURE DRAWINGS; 38814/2001/104-118
21. IT WILL BE THE RESPONSIBILITY OF PLOT DEVELOPERS TO ENSURE THEIR INDIVIDUAL PLOT DRAINAGE ARRANGEMENT'S ARE ROUTED TO THE SPUR CONNECTION DISCHARGE POINTS SHOWN ON THIS DRAWING. THIS INCLUDES EXISTING BUILDINGS WHICH WILL REQUIRE THEIR EXISTING DRAINAGE TO BE AMENDED TO ALIGN WITH THE PROPOSED STRATEGY SHOWN ON THIS DRAWING





ILLUSTRATIVE BIO-RETENTION ZONE (CROSS SECTION) SCALE 1:100

Mark	Revision	Date	Drawn	Chkd	Appd
C	AMENDED TO REPRESENT UPDATED MASTERPLAN	30.06.17	GC	ST	ST
B	BIO-RETENTION ZONES AMENDED	12.12.16	GC	RC	ST
A	AMENDED FOLLOWING CPA COMMENT	01.09.16	DRM	DRM	ST

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

Drawing Issue Status: PRELIMINARY

SURFACE WATER AND FOUL WATER DRAINAGE STRATEGY SHEET 2 OF 6 WEST CAMBRIDGE DENSIFICATION

Client: UNIVERSITY OF CAMBRIDGE

Date of 1st Issue	Designed	Drawn
24.12.15	DRM	DRM
AO Scale	**Checked**	**Approved**
1:500@A0	ST	ST
Drawing Number		**Revision**
31500/2001/151		C

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CAMBRIDGE
Tel: 01223 862000

KEY:

- EXISTING PIPE TO BE ABANDONED
- PROPOSED SURFACE WATER PIPE TO BE INSTALLED (SIZE TO BE DETERMINED)
- PROPOSED FOUL WATER PIPE TO BE INSTALLED
- EXISTING SURFACE WATER PIPE TO BE REPLACED WITH LARGER CAPACITY PIPE
- EXISTING SURFACE WATER PIPE
- EXISTING FOUL WATER PIPE
- INDIVIDUAL PLOT SPUR CONNECTION TO SURFACE WATER SEWER (WHERE ONSITE STORAGE IS TO BE PROVIDED - REFER TO AREAS SHOWN PINK, A FLOW RATE HAS BEEN CALCULATED BY MULTIPLYING THE 100yr GREEN FIELD RUNOFF RATE WITH THE EXTENT OF IMPERMEABLE AREA IN WHICH EXISTS ON PLOT)
- INDIVIDUAL PLOT SPUR CONNECTION TO FOUL WATER SEWER LAID AT 1/150 AND TO BE 150 DIA.
- INDICATIVE BIORETENTION AREAS
- PROPOSED SUDS SWALE
- PROPOSED TREE PLANTING
- EXISTING TREES WITH ROOT PROTECTION ZONE

SHEET KEY PLAN

SHEET 1, SHEET 2, SHEET 3, SHEET 4, SHEET 5, SHEET 6

TABLE IDENTIFYING PROPOSED SURFACE WATER STRATEGY AND CONTRIBUTING AREAS

	*COMBINED TOTAL OF CATCHMENT AREAS (ha)	**COMBINED TOTAL ASSUMED IMPERMEABLE AREA OF CATCHMENT AREAS (ha)	PROPOSED SURFACE WATER RELEASE RATES
CATCHMENT AREAS DRAINING DIRECTLY TO SOUTH WEST LAKE	31.88ha	20.40ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS
CATCHMENT AREAS DRAINING DIRECTLY TO CAMEL	1.437ha	0.69ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS
CATCHMENT AREAS UTILISING ONSITE STORAGE	22.04ha	15.80ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS (MIN THROTTLE RATE = 1 l/s)
CATCHMENT AREAS DRAINING TO PUBLIC SEWER ON BASINGLEY ROAD	8.039ha	6.02ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS (MIN THROTTLE RATE = 1 l/s)
CATCHMENT AREAS DRAINING DIRECTLY TO PARKED POND	3.000ha	1.70ha	1 IN 1 YEAR GREENFIELD RUNOFF RATE FOR ALL STORM EVENTS
	TOTAL =65.1Hha	TOTAL =44.60ha	

TABLE NOTES

THE TOTAL IMPERMEABLE AREAS HAVE BEEN ASSUMED BASED ON THE LAND USE THAT IS BEING PROPOSED (AS OF THE AECOM PARAMETER PLAN). THIS HAS TYPICALLY BEEN ASSUMED TO BE THE FOLLOWING:

- 85% IMPERMEABLE FOR DEVELOPMENT PLOTS
- 35 - 55% IMPERMEABLE FOR PUBLIC OPEN SPACE
- EXISTING CATCHMENTS WHICH WILL REMAIN HAVE BEEN MEASURED AS OF THEIR CURRENT IMPERMEABLE AREAS

FOR FURTHER INFORMATION ON PROPOSED WORKS TO EXISTING DRAINAGE INFRASTRUCTURE AND STORAGE VOLUMES TO INCREASE EXISTING ATTENUATION CAPACITY REFER TO PBA DRAWING 31500-2006-116, 117 & 118

GREEN FIELD RUNOFF RATES USED FOR DESIGN (l/s/ha)

1:100yr -12.0l/s/ha

(THE GREEN FIELD RUNOFF RATE STIPULATED ABOVE HAS BEEN BASED ON A 15% BETTERMENT ON THE GREENFIELD RUNOFF RATES STIPULATED WITHIN THE STAGE 1B DRAINAGE TECHNICAL NOTE DATED DECEMBER 2014.

TABLE IDENTIFYING PROPOSED CONTRIBUTING AREAS TO BIN BROOK AND WASHPIT BROOK WATERCOURSE

	TOTAL CATCHMENT AREA (ha)	TOTAL CATCHMENT IMPERMEABLE AREA (ha)
WASHPIT BROOK CATCHMENT	8.04ha	6.02ha
BIN BROOK CATCHMENT	58.12ha	38.58ha
	TOTAL 66.14ha	TOTAL 44.60ha

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN UNLESS NOTED OTHERWISE.
3. ALL COORDINATES ARE IN METRES RELATIVE TO ORDNANCE SURVEY NATIONAL GRID.
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5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS AND ARCHITECTS DRAWINGS AND SPECIFICATIONS.
6. FOR FURTHER INFORMATION ON SITE WIDE PROPOSED STORAGE PROVISIONS AND ARRANGEMENTS PLEASE REFER TO PBA DRAWING 31500-2006-116, 117 & 118
7. ALL EXISTING INVERT LEVELS SHOWN ON THIS PLAN HAVE BEEN BASED OFF THE FOLLOWING;
   - GREEN HATCH TOPOGRAPHICAL SURVEY.
   - CAMLINE SERVICES CCTV SURVEY.
9. ON PLOT STORAGE ESTIMATES SHOWN ON THIS PLAN ARE BASED OFF THE 1:100 YEAR + 40%cc STORM EVENT AND ARE ASSUMING EACH PLOT WILL UTILISE A SINGLE CONTROL RELEASING WATER AT THE 1:1yr GREENFIELD RUNOFF RATE (MIN FLOW RATE OF 1 l/s - SEE NOTE 14).
10. THE PIPE SIZES SHOWN ON THIS PLAN HAVE BEEN TESTED FOR FLOODING FOR THE 1:30 YEAR RETURN PERIOD STORM ONLY. IT WILL ALSO NEED TO BE DEMONSTRATED THAT FLOODING TO BUILDING AREAS DOES NOT OCCUR DURING THE 1:100 YEAR STORM EVENT + 40% CLIMATE CHANGE EVENT. WITHOUT ADEQUATE PROPOSED LEVELS HOWEVER, THIS CANNOT BE SATISFACTORILY DETERMINED AT THIS STAGE AND THEREFORE THE PIPE SIZES SHOWN ON THIS PLAN ARE SUBJECT TO RUNNING THIS SIMULATION WHEN PLOT LEVELS BECOME AVAILABLE
11. ALL STORAGE VOLUMES SHOWN ON THIS PLAN HAVE INCLUDED FOR AN ADDITIONAL 40% ALLOWANCE FOR CLIMATE CHANGE. THIS REPRESENTS THE "UPPER" LIMIT OF GOVERNMENT GUIDANCE
12. THE COVER LEVELS SHOWN ON THIS PLAN REPRESENT EXISTING GROUND LEVEL. THESE LEVELS WILL BE SUBJECT TO CHANGE AS PROPOSED WORKS AND DEVELOPMENT LEVELS ARE SET. THESE SHOULD THEREFORE BE SEEN AS HIGHLY INDICATIVE AT THIS STAGE
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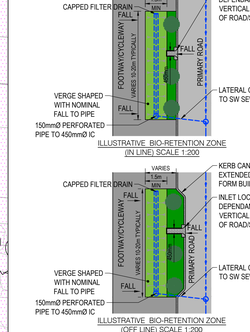
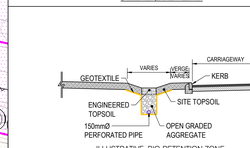
14. IT IS ASSUMED THE MINIMUM SW DISCHARGE RATE FROM INDIVIDUAL PLOTS WILL BE CAPPED AT 1 l/s. IN ORDER TO REDUCE BLOCKAGE RISK ASSOCIATED WITH FLOW CONTROLS, MONTHLY INSPECTIONS OF ALL FLOW CONTROLS (IN ACCORDANCE WITH THE CAMBRIDGESHIRE SUDS ADOPTION GUIDE) WILL BE CARRIED OUT AND OVERFLOW WEIRS INSTALLED)
15. PEAK FOUL FLOW RATES SHOWN ON THIS PLAN HAVE BEEN DETERMINED BY MULITPLYING TOTAL PLOT DEVELOPABLE FLOOR AREAS (TAKEN FROM AECOM DEVELOPMENT SCHEDULE VERSION 5, DATES 10.02.2016) BY 2.25l/s/ha. THIS CAPACITY HAS BEEN AGREED WITH ANGLIAN WATER.
16. ALL FINISHED FLOOR LEVELS WILL BE ESTABLISHED TAKING IN TO FULL ACCOUNT DRAINAGE CONNECTIONS.
17. WHILST AREAS SHOWN HATCHED GREEN ON THIS PLAN HAVE A FREE FLOW DISCHARGE TO THE EXISTING WESTERN LAKE, INDIVIDUAL PARCEL OCCUPIERS WILL BE REQUIRED TO IMPLEMENT MEASURES ONSITE TO PROVIDE TREATMENT OF FLOWS LEAVING PLOTS.
18. ALL DEVELOPMENT PARCELS IMPLEMENTING SERVICE YARDS WILL BE REQUIRED TO ENSURE ALL RUNOFF LEAVING THESE AREAS IS PASSED THROUGH A CLASS 1 BYPASS SEPARATOR PRIOR TO RUNOFF ENTERING THE WIDER SURFACE WATER NETWORK
19. SUDS FEATURES SHOWN ON THIS PLAN ARE INDICATIVE. ALL LOCATIONS SHOWN ARE SUBJECT TO VERIFICATION AND CO-ORDINATION WITH EXISTING AND PROPOSED UNDERGROUND UTILITY INFRASTRUCTURE . ALL FEATURES TO BE IN ACCORDANCE WITH CAMBRIDGESHIRE SUDS DESIGN AND ADOPTION GUIDE
20. THESE INSET PLOT PLANS ARE TO BE READ IN CONJUNCTION WITH THE INFRASTRUCTURE DRAWINGS; 38814/2001/104-118
21. IT WILL BE THE RESPONSIBILITY OF PLOT DEVELOPERS TO ENSURE THEIR INDIVIDUAL PLOT DRAINAGE ARRANGEMENTS ARE ROUTED TO THE SPUR CONNECTION DISCHARGE POINTS SHOWN ON THIS DRAWING. THIS INCLUDES EXISTING BUILDINGS WHICH WILL REQUIRE THEIR EXISTING DRAINAGE TO BE AMENDED TO ALIGN WITH THE PROPOSED STRATEGY SHOWN ON THIS DRAWING





Mark	Revision	Date	Drawn	Chkd	Appd
C	AMENDED TO REPRESENT UPDATED MASTERPLAN	30.06.17	GC	ST	ST
B	BIO-RETENTION ZONES AMENDED	12.12.16	GC	RC	ST
A	AMENDED FOLLOWING CPA COMMENT	01.09.16	DRM	DRM	ST

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.

UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

Drawing Issue Status

PRELIMINARY

SURFACE WATER AND FOUL WATER DRAINAGE STRATEGY SHEET 3 OF 6 WEST CAMBRIDGE DENSIFICATION

Client

UNIVERSITY OF CAMBRIDGE

Date of 1st Issue	Designed	Drawn
24.12.15	DRM	DRM
A0 Scale	Checked	Approved
1:500@A0	ST	ST
Drawing Number		Revision
31500/2001/152		C

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File Location: J:\31500 west cambridge master\plan\drawings\31500_2001_152-1545 proposed ver B fw drainage strategy.dwg